

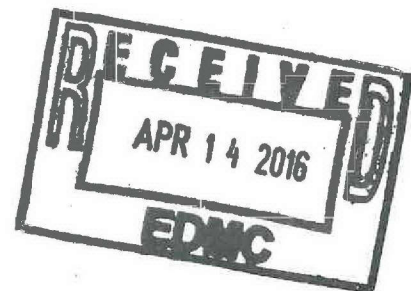
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Office of River Protection Project Managers' Meeting Minutes

2440 Stevens Center
Richland, Washington

December 16, 2015



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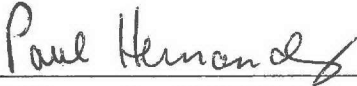
CONCURRENCE SIGNATURES

The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Project Managers' Meeting.



Richard Valle, DOE-ORP

Date: 01/28/16



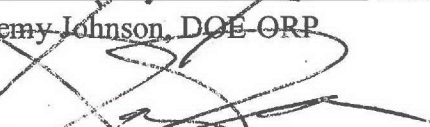
Paul Hernandez, DOE-ORP

Date: 1/29/16



Jeremy Johnson, DOE-ORP

Date: 1/29/16



For Chris Kemp, DOE-ORP

Date: 2/1/16



Steve Pfaff, DOE-ORP

Date: 1/29/16



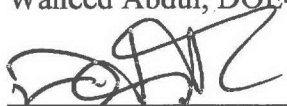
Joni Grindstaff, DOE-ORP

Date: 2/4/16



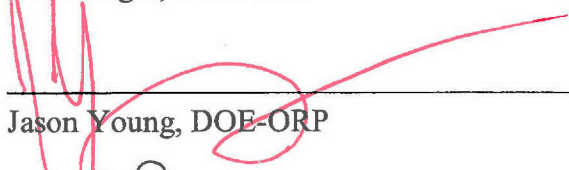
Waheed Abdul, DOE-ORP

Date: 2/2/16



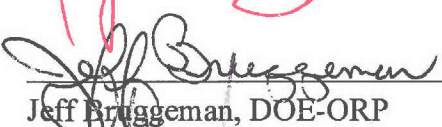
Dan Knight, DOE-ORP

Date: 2/1/16



Jason Young, DOE-ORP

Date: 2/1/2016



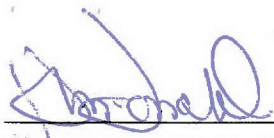
Jeff Bruggeman, DOE-ORP

Date: 2/1/16



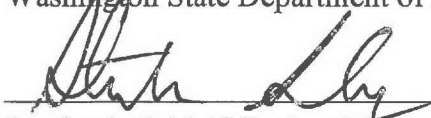
Jeff Lyon, Project Manager,
Washington State Department of Ecology

Date: 3/30/16



Dan McDonald, Project Manager,
Washington State Department of Ecology

Date: 2-19-16



Stephanie Schleif, Project Manager,
Washington State Department of Ecology

Date: 4/14/16

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TRI-PARTY AGREEMENT MILESTONE REVIEW AND MONTHLY SUMMARY REPORT

1.0 ADMINISTRATIVE ITEMS/MILESTONE STATUS

Upcoming Meetings

The next ORP project managers meeting (PMM) is scheduled for January 21, 2016, from 9:00 a.m. to 11:30 a.m. at the ORP office in Richland, Washington. ORP stated that the proposed meeting schedule for project manager meetings and quarterly milestone meetings in 2016 was emailed to the program managers, and there were very few responses. The 2016 schedule will follow the same pattern as 2015, with the PMM moving to Wednesday afternoon when there is a DOE-RL quarterly milestone review and Inter-Agency Management Integration Team (IAMIT) meeting.

Recent Items Entered/To Be Entered into the Administrative Record

The U.S. Department of Energy (DOE), Office of River Protection (ORP) provided the monthly Tri-Party Agreement (TPA) and Consent Decree (CD) reports, which will be submitted to the Administrative Record.

Tri-Party Agreement Milestone Status

ORP stated that there were no changes to the milestone status since the quarterly milestone review held in November 2015.

ORP/Ecology TPA and CD Agreements, Issues and Action items – December 2015

The action items were discussed and updated as follows (see agreements, issues and action items table):

Action No. 1 (TF-14-06-02)

ORP stated that monthly meetings continue to be held with Ecology to discuss the Waste Management Area C (WMA-C) performance assessment (PA). This action remains open.

Action No. 2 (TF-14-02-02)

ORP stated that an integrated closure schedule will be provided to Ecology by the end of December 2015. ORP noted that the closure schedule is also associated with action No. 4. This action remains open.

Action No. 3 (TF-13-12-01)

ORP stated that the actionee will be changed to reflect both ORP and Ecology as co-actionees, and the action will remain open as a reminder to the parties to provide an update on new team members. This action remains open.

Action No. 4 (TF-13-02-03)

See status of action No. 2. This action remains open.

Action No. 6 (TF-15-03-05)

ORP reported that efforts continue with Legal to remove the markings (i.e. OUO-Official Use Only) off the documents so they can be provided to Ecology. ORP stated that progress has been made in that none of the technical documents for the future will have any markings on them. ORP added that the efforts with Legal are forward working and not backwards working, and gave the example that there was no point in going back to the conceptual design report since it has changed. This action remains open.

Action No. 7 (TF-15-06-01)

ORP stated that it foresees no issue with including Ecology in future Low Activity Waste Pretreatment System (LAWPS) work discussions and meetings, as long as ORP stays within the bounds of what it is allowed to discuss. ORP expressed appreciation to Ecology for attending the 30 percent design review, and noted that Ecology was able to see the drawings. ORP added that a set of drawings has been reviewed that should be able to be released to Ecology and will assist in permitting activities with LAW. Ecology inquired when the set of drawings might be available. ORP responded that there are about seven or eight drawings that should be released sometime shortly after the first of the year 2016. Ecology clarified that discussions continue with ORP, and that ORP is not free to state what the project deliverables are until the schedules are released. Ecology added that ORP will continue to provide documents as they are released. ORP concurred with Ecology's clarification statement. This action remains open.

Action No. 8 (TF-15-07-03)

ORP stated that there needs to be a discussion scheduled with Ecology after the beginning of 2016 to start developing a path forward to address Ecology's concerns about basing the retrieval technology on the best basis inventory (BBI). ORP noted that the action was generated by Ecology's letter regarding its concerns about the WMA A/AX Data Quality Objective (DQO) process for in-tank sampling and for soil sampling for future RFI purposes. This action remains open.

Action No. 9 (TF-15-10-01)

Ecology stated that it has not received any information associated with this action, and requested that ORP follow up and provide a status. This action remains open.

Action No. 10 (TF-15-10-02)

See action No. 9. This action remains open.

Action No. 11 (TF-15-10-03)

Ecology inquired about the status of the LERF basin covers and when information could be expected. ORP responded that it would follow up with the point of contact for the action to ensure that Ecology has been updated on the LERF basin covers (see action No. 9).

Key Documents List

ORP provided an updated key documents list.

2.0 SYSTEM PLAN

ORP stated that there were no changes since the last monthly report.

3.0 ACQUISITION OF NEW FACILITIES

ORP stated that there were no changes since the last monthly report.

4.0 SUPPLEMENTAL TREATMENT AND PART B PERMIT APPLICATIONS

ORP stated that there were no changes since the last monthly report.

5.0 242-A EVAPORATOR STATUS

ORP stated that the evaporator is in between campaigns, and the next campaign (EC-04) is estimated to start at the beginning of the third quarter in FY16. ORP noted that the schedule is subject to change, depending on field conditions. ORP stated that campaign planning and scheduling are under way, and that periodic calibrations and maintenance are done between each evaporator campaign. ORP noted that one of the maintenance activities is changing out the oil in the windows, which changes the optics from a yellow film to a clear window. ORP stated that at this point there are no issues with the evaporator. Ecology inquired about the Independent Qualified Registered Professional Engineer (IQRPE) assessment that is scheduled for 2016. ORP responded that it will keep Ecology apprised as the plans get finalized for the IQRPE assessment. Ecology asked if the IQRPE assessment could be added to the list of bullets under significant planned actions. ORP responded that the IQRPE is not scheduled in the next six months, but it will follow up with Ecology's request on the status.

6.0 LERF/200 Area ETF

ORP stated that the volumes are fairly stable in the Liquid Effluent Retention Facility (LERF) basins, and that maintenance and repair activities are planned as the facility gears up for operation. Ecology referred to the last bullet under significant planned actions regarding the Class 1 modifications, and indicated that the Class 1 modifications under development will not be included in the package for the quarter ending December 31, 2015. Ecology stated that more time is needed for its review of the Class 1 modifications. Ecology inquired about a repair or replacement for the cover on LERF basin 44. ORP responded that there is a long path to getting the cover repaired or replaced, and the facility has to be back up in operation and then remove the material in the basin. ORP stated that several upgrades to the facility are being done, and that several valves were replaced last weekend. A cold run of the facility will be needed before the

crew can start processing. Ecology asked if several options for cover repairs were being evaluated, and stated that the covers are part of the information that is to be provided under action No. 11. ORP responded that options are being evaluated and the information will be provided to Ecology. Ecology asked about an approximate time frame for when the facility would start running again. ORP responded that the cold run is scheduled for the March/April 2016 time frame, and there has not been an update to the schedule. Ecology inquired about the capacity of the basins in relation to operation of the facility. ORP responded that there is adequate capacity to start up the facility.

7.0 TANK SYSTEM UPDATE

Double Shell Tank (DST) Integrity - ORP stated that the planned activities are listed for the DST and SST integrity programs for the year. ORP noted that the Independent Qualified Registered Professional Engineer (IQRPE) assessment for the DST systems was just completed, and a draft report has been completed. ORP stated that when its review of the draft report is completed, it will be provided to Ecology for review.

Single Shell Tanks (SST) Integrity – ORP noted that the intrusions mitigation is included in this section because the group that is responsible for integrity is responsible for the portable evaporator use. ORP added that the intrusions mitigation actions are also included in the discussions for the M-045-56 interim measures milestone.

8.0 SINGLE-SHELL TANK INTEGRITY ASSURANCE

ORP stated that it still intends to share with Ecology a change package to eliminate future dome elevation survey report submittals under the M-045-91E series of milestones.

9.0 IN-TANK CHARACTERIZATION SUMMARY

ORP stated that several best-basis inventory (BBI) updates and tank chemistry samplings were completed, and a report was issued in support of the Waste Treatment Plant (WTP) on some of their information for the solids in the bottom of tank SY-102. ORP noted that this is a slow time of year due to the cold weather. ORP referred to the last bullet on page ten and provided an update. ORP stated that the purpose of the C-111 sample was to determine whether the caustic had been effective. When the crew was ready to take the sample in C-111, it was visually observed that the caustic was working and the decision was made to start sluicing. ORP indicated that a fair amount of waste had been removed.

10.0 TANK OPERATIONS CONTRACT OVERVIEW

ORP stated that all of the graphs have been updated in today's summary report, and noted that they look empty for December 2015, but the graphs reflect October 2015 data. ORP pointed out one change that was corrected in the report after it was sent out to everyone. At the top of each page that has the graph, it now states data set FY 2016, instead of FY 2015. The corrected version will be submitted to the Administrative Record. ORP reported that there was a positive cost and schedule variance for the current month tank farms contract, and there was a positive cost and schedule variance under base operations (5.01).

ORP noted that the unfavorable cost variance under retrieve and close SSTs (5.02) was primarily due to C-111 and not retrieving as much waste as expected. ORP explained that credit was not taken for retrieval, but it cost the same amount of money because the crews had to be paid for the entire month whether or not waste was being transferred out of the tank. ORP noted that there was a positive cost and schedule variance under 5.03. ORP stated that most of the activities under treat waste (5.5) are associated with the Low Activity Waste Pretreatment, and that some of the unfavorable variances have been recovered since this report was issued. ORP stated that in October 2015 there was a delay in the overall procurement of the sRF resin, and 460 gallons of excess sRF resin have been acquired from BNI, which was delivered to the Savannah River Site today. ORP added that a procurement was entered into with Microbeads out of Norway for 500 gallons of resin, and it should be received in the April/May 2016 time frame.

11.0 SINGLE-SHELL TANK CLOSURE AND RETRIEVAL PROGRAM

Closure Program - ORP stated that M-045-59 appears to be a redundant milestone, and the intent is to discuss with Ecology a path forward regarding this milestone. ORP noted that there are other milestones that address the activities in M-045-59, including M-045-61A and M-045-56.

ORP stated that the remaining milestones are on schedule, with the exception of M-045-82 and M-045-92, which are in dispute. ORP noted that as discussed under action No. 2, an integrated closure schedule associated with WMA-C for M-045-82 will be delivered to Ecology by December 31, 2015. ORP added that after the schedule is provided by the contractor an internal review will be done, and due to the holidays, the delivery time may be extended into the second week of January 2016. ORP stated it was important to have all of the team members from Ecology available when the schedule is presented. Ecology stated that it had no issues with ORP delivering the integrated closure schedule the second week in January 2016. ORP noted that the M-045-82 dispute was extended to February 2016, and the M-045-92 dispute was extended to January 29, 2016. ORP stated that it is reviewing the settlement agreement for M-045-92 that was proposed by Ecology, and there was discussion with Ecology about whether the dispute could be settled via a change package. Ecology stated that the attorney should have time available this week and next week to discuss the settlement, and then Ecology will follow up with ORP.

Retrieval Program - ORP noted that the status of M-045-86 will be changed from at risk to on schedule in next month's summary report. ORP reported that the only remaining RDR report is for C-102, and it is on track to be submitted within 12 months. ORP added that the C-102 retrieval certification was submitted to Ecology last month. ORP noted that progress continues with C-111 retrieval, and retrieval is up to about 8,000 gallons of waste removed since the last report of 2,000 gallons removed. ORP stated that the slurry pump that has some hydraulic leakage issues is still performing, and the hope is for the pump to get through the end of C-111 retrieval. Ecology inquired about the hydraulic issue and possibly repairing or replacing a pressure seal. ORP responded that the seal is on the pump located inside the tank, and the pump would have to be pulled out. ORP stated that a hydraulic seal was reconfigured outside the tank and the leak rate has decreased. ORP noted that it is closely monitoring the hydraulic fluid, and a grab sample will be taken out of the DST receipt tank today to ensure hydraulic fluid is not finding its way to the surface.

ORP stated that a draft AX tank waste retrieval work plan (TWRWP) was provided to Ecology for review. ORP noted a correction should be made to the first bullet at the top of page 25, and it should read AX Farm to AZ-102 instead of AX-102. ORP stated that AX field activities continue with duct work isolation and preparations for tying in the portable exhausters.

12.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

ORP stated that procurement and design efforts are being initiated to modify the C-105 TWRWP.

13.0 TANK TRI-PARTY AGREEMENT APPENDIX H STATUS

There was no change in status.

14.0 TANK RETRIEVALS WITH INDIVIDUAL MILESTONES

There was no change in status.

CONSENT DECREE MONTHLY SUMMARY REPORT REVIEW

1.0 CONSENT DECREE MILESTONE STATISTICS/STATUS - CONSENT DECREE REPORTS/REVIEWS

ORP stated that the proposed meeting schedule for the 2016 calendar year has been distributed, and it follows the same schedule as 2015. ORP stated that monthly project managers meetings (PMMs) are held that follow the monthly summary report, and quarterly meetings are also held that follow the monthly summary report. ORP noted that the federal project directors that attend the PMMs are now attending the quarterlies in an effort to continue providing information more effectively. ORP asked for feedback from Ecology about whether the parties should continue with the PMMs since some of the actions cannot be responded to and information cannot be discussed due to the ongoing Consent Decree litigation. Ecology responded that the preference would be to maintain the same frequency and format by holding both the PMMs and the quarterlies.

The reports, agreements, issues, and actions were discussed and updated as follows:

Action No. 1 (WTP-14-10-01)

ORP suggested scheduling a meeting with Ecology to discuss an engineering study that was conducted in 2008. Ecology took the lead to schedule a meeting in January 2016 to discuss the melter assembly building, and the engineering study could also be discussed at that time. ORP also noted that there is a tank farm action to have a discussion with Ecology regarding the Effluent Treatment Facility (ETF). This action remains open.

Action No. 2 (WTP-14-10-02)

ORP suggested closing this action, since there have been several briefings on the subject, and there are periodic updates to the Ecology permitting team regarding Direct Feed Low Activity Waste (DFLAW) during the biweekly meetings. ORP added that there will be specific items that will be requested and provided as they come up. Ecology agreed that this action could be closed. ORP stated that closing this action will not change the frequency of discussions that will be held. This action was closed.

Action No. 3 (WTP-14-10-03)

ORP stated that all of the information has been provided to Ecology regarding the Radioactive Liquid Waste Disposal (RLD) vessels, and asked what is needed to get on a path from the RLD vessels to acceptance of the Analytical Laboratory (LAB) substantially complete milestone. Ecology responded that another internal meeting is needed to get a consensus on moving forward. Ecology noted that it will need to provide a recommendation to management regarding acceptance of the LAB substantially complete milestone, which will then go through the chain of approval through the Attorney General and back to the local Ecology office. ORP asked if Ecology needed anything more to support a recommendation for the LAB substantially complete milestone when the appropriate time comes. Ecology stated that it will hold the internal meeting, and then follow up with ORP by the second week in January 2016. This action remains open.

Action No. 4 (WTP-14-10-04)

ORP suggested revising this action and taking out the High-Level Waste (HLW) portion. Since the action for HLW is completed, so now considered as "closed". Due to the ongoing CD litigation process, the pre-treatment (PT) portion has been on hold, and stays "open". ORP added that as more information is available regarding the internal forecast and the status of the technical issues, updates will be provided to Ecology. Ecology responded that HLW could be removed from the action. This action remains open for PT.

Action No. 5 (WTP-14-10-05)

ORP stated that PT two-year work plan pertains to the internal forecast and is information that cannot be discussed due to the ongoing CD litigation process, and this action is on hold. This action remains open. ORP stated that the HLW two-year work plan has been briefed so the HLW action is closed.

Action No. 6 (WTP-14-06-02)

Ecology stated that an internal meeting is needed to determine what the team's expectations are in regard to this action. Ecology will follow up with ORP after the meeting is held. This action remains open for PT.

Action No. 7 (WTP-14-06-03)

ORP stated that based on feedback from its legal staff, a briefing on the design and operability (D&O) review would not be provided to Ecology. Ecology asked about the status of the D&O review. ORP responded that the D&O report is still being reviewed by legal staff, and it has not been issued. ORP stated that a communications plan is being developed for how the report will be issued, but it is not known how widely the report will be provided for review outside of ORP. ORP added that the technical issues that were identified in the D&O review are currently being worked, and they are being tracked internally in the issue management system. ORP noted that the contractor is following the path of resolution of issues that ORP identified have not already been solved, and that some of the issues have been solved since the D&O review. Ecology clarified that the issue is primarily whether or not ORP's legal staff will allow an update on the D&O review. ORP concurred that it is a communication issue and not whether the problems will be solved. Ecology asked if ORP anticipated a time frame of 30 to 60 days to provide an answer regarding the D&O review. ORP responded that currently the answer is that a briefing will not be provided on the D&O report specifically. Ecology indicated that it would discuss this action internally. The status of this action is closed.

Action No. 8 (WTP-14-04-01)

ORP stated that the intent is to follow up with Ecology to define and clarify this action to ensure it is being addressed effectively. ORP indicated that this action is similar to action No. 6. Ecology stated that the action goes beyond technical issues, and it was to address other systems in PT that are being looked at, such as the nitric acid recovery system and relocation of the caustic scrubber. ORP requested an email from Ecology that would provide more clarity on its request, and then a meeting could be scheduled in the near term. Ecology clarified that its request pertains to a technical discussion regarding configuration and reconfiguration of systems.

ORP stated that there are some potential configuration/reconfiguration decisions that are in process that may not be associated with technical issues, and it requested as much clarification as possible from Ecology. Ecology agreed to send ORP an email clarifying its request. This action remains open.

Action No. 9 (WTP-15-01-01)

ORP stated that it is working with Bechtel on the standardized high solids vessel design (SHSVD) and optimization in planning areas 2, 3 and 4. ORP stated that several of the studies are expected to be completed in early spring to late summer 2016. ORP suggested leaving this action open and following up with Ecology when some of the studies are completed and issues are resolved. Ecology agreed to leaving the action open until ORP is ready to provide a briefing. This action remains open.

Action No. 10 (WTP-15-01-03)

ORP stated that several meetings have been held with Ecology, and information was provided in response to a request from Ecology. ORP suggested closing this action, and that any additional discussions could be covered by action No. 3. Ecology agreed that action No. 3 would provide the primary link and this action could be closed. This action was closed.

Action No. 11 (WTP-15-06-01)

ORP reported that the expectation is to have the corrosion simulant basis document completed by February 2016, and the intent is to finalize information in the report before scheduling a briefing. Ecology suggested that ORP provide a fairly comprehensive update in January 2016. ORP agreed with Ecology's request. This action remains open.

Action No. 12 (WTP-15-06-02)

ORP noted that there had been discussions about separating the HEPA filters by systems and the facility, and that is how the bounding conditions are being developed for the testing. ORP noted that the HEPA filter testing started today and will go through 2016. However, some results will be available in March 2016, when a briefing could be made. Ecology agreed to change the date in the action to March 2016 for a briefing. This action remains open.

2.0 SINGLE-SHELL TANK RETRIEVAL

There was no discussion today regarding the CD SST retrieval. See pages 4 and 5 of the CD monthly summary report

3.0 TANK WASTE RETRIEVAL WORK PLAN STATUS

The CD TWRWP table is identical to TPA TWRWP table. The draft AX TWRWP was provided to Ecology for review.

4.0 SINGLE-SHELL TANK RETRIEVAL MONTHLY FISCAL YEAR EARNED VALUE MANAGEMENT SYSTEM DATA

See pages 7 and 8 of CD monthly summary report.

5.0 WASTE TREATMENT AND IMMOBILIZATION PLANT PROJECT

ORP noted the percent complete numbers for LAW, Balance of Facilities and LAB (LBL), and that overall the LBL facilities were 51 percent complete as of October 2015. Ecology asked if the 51 percent complete meant that the LBL facilities were only halfway completed. ORP responded that in the July 2015 time frame, the LBL facilities started working under an internal forecast, which is like an update to the baseline that added Direct Feed Low-Activity Waste (DFLAW) activity such as the Effluent Management Facility (EMF). ORP stated that when the EMF and all of the other isolations needed in the field were added, the percent complete had to be adjusted to accommodate the new activities. Ecology clarified that the difference in percent complete for LBL is because of the infusion of the EMF and associated activities into the internal forecast. ORP responded that Ecology's statement was correct. Ecology asked if there were other activities that affect the percent complete for LBL. ORP responded that there are other activities in LAB and BOF, and those would be discussed during the specific facility updates.

ORP stated that negotiations with Bechtel were completed during the summer to change the contract line item number (CLIN) 2.1. ORP noted that CLIN 2.1 is the design for DFLAW, which is now in the contract, and it mainly represents design of the EMF and associated activities. ORP stated that in August 2015, Bechtel submitted a proposal for CLIN 2.2 and 2.3, which are construction and procurement for the DFLAW activities. ORP has completed its technical and cost evaluation of the proposal, and ORP is ready to meet with the contractor and negotiate that scope of work into the contract.

ORP reported that receipt of the proposal for CLIN 2.4, which is commissioning, is expected any day from the contractor, and a technical and cost evaluation will be conducted. ORP stated that the same steps will be followed by sitting down with the contractor and negotiating CLIN 2.4 into the contract. ORP noted that negotiating the CLINs into the contract are all positive steps towards getting DFLAW completely on contract for Bechtel. ORP stated that the next step will be for Bechtel to produce a baseline change proposal (BCP), which is expected by December 18, 2015. Following receipt of Bechtel's BCP, a review will be conducted and all of the approval processes for a capital asset project will be done. ORP noted that the BCP approval process will go through DOE-Headquarters and will continue for some time, but it all represents progress towards getting an approved baseline.

6.0 PRETREATMENT FACILITY

ORP noted that PT is operating under a three-year internal forecast work plan that began in FY15 and goes through FY17. ORP stated that discussions are ongoing about moving forward to reprioritize technical issues as it correlates to the internal forecast. ORP will be working with Bechtel in January and February 2016 to develop an internal trend that will revise the outline for the next two years.

ORP noted that the PT T2 criticality calculation report was issued, and that Ecology had requested a copy of the document. ORP stated that the criticality calculation report is a subset

finalized to provide to Ecology versus providing a subset of the report. Ecology agreed with ORP's suggestion.

ORP stated that the first Phase II test was completed, which is a subset to the start of the Phase III pulse jet mixer (PJM) control testing. The Phase III testing will address the vessel design, and it is expected to be completed by 2016. ORP noted that there have not been any impacts to date with the Phase III testing, and the forecast is current on completing the effort. ORP pointed out that some of the PT and HLW activities are impacted by resources, due to the priority focus on LBL, and that is the reason the reprioritization effort is ongoing to mitigate the impacts. Ecology asked if resources are being capped and then reoriented, depending on project needs, or are the resources fluctuating as needed. ORP responded that it pertains to Bechtel's effort to hire and maintain engineering staff, and to have enough engineers supporting all of the needed areas. ORP added that it is not due to any direction from DOE.

ORP reported that it is reviewing Bechtel's submittal for the standard high solids vessel design (SHSVD) testing and identified design features. ORP stated that its review should be completed in February 2016, pending any resolution of comments. Ecology asked if there will be any changes to the vessel that will be used for the SHSVD testing. ORP responded that there were discussions about whether or not there would be changes, and it has been resolved. Ecology asked when the vessel will be installed and ready to be tested. ORP responded that the original plan was to start testing during the summer of 2016, but due to the reprioritization and focus on LBL, the date may be changed.

ORP reported that there were some delays to the PJM vessel fabrication, but fabrication is moving forward. A QA team from Bechtel is planning to visit the fabrication site in the January 2016 time frame. Ecology asked if the PJM Phase III control testing involves using a high solid slurry. ORP responded stated that it pertains to the simulant basis testing. ORP stated that it will follow up with Ecology to provide more information regarding the PJM Phase III control testing.

Ecology asked if the updated erosion/corrosion risk assessment could be shared after it is issued. ORP responded that it will follow up on whether the risk assessment could be provided to Ecology.

Ecology Request 1: *ORP will follow up on Ecology's request for the updated erosion/corrosion risk assessment after it has been issued.*

7.0 HIGH-LEVEL WASTE FACILITY

ORP stated that HLW is working under the two-year plan for FY15 and FY16, and replanning for FY16 is under way due to the priority with LBL. ORP noted that there may be activities identified in HLW that will be pushed out in support of LBL. HLW continues to operate under limited construction and procurement. ORP stated that efforts continue with the design and operability (D&O) studies. One of the studies is the offgas study. ORP stated that one concern from the D&O team was that the offgas system was too complex, and with all the controls that are needed there may be some operability issues. The offgas study has been broken into phase 1 and phase 2, and phase 1 will review comments on the overall system to identify what improvements can be done and if changes are needed. ORP noted that the offgas system is a permitted system, and discussions with Ecology will be needed based on any changes identified

2016, and the unit is scheduled to be shipped in March 2016. ORP stated that the final paperwork is being prepared, and it will be included with the shipment of the TCO. ORP stated that the functional testing has been completed on the ammonia skid, and it will be shipped just ahead of the TCO so it can be staged in the room where it will be located. Ecology noted that the wet electrostatic precipitator (WESP) vessel looked like it was completed, and now it has been taken down again. ORP stated that the electrode that goes inside a tube in the middle of the vessel went out of tolerance when the angle at the bottom of the tube was tightened. A new connection had to be fabricated, which delayed the progress being made. It was noted that the electrode is very small in diameter and it doesn't require much torque to tighten it.

9.0 BALANCE OF FACILITIES

ORP stated that the overall percent complete for BOF is dollar-based, and that the 56 percent complete overall is because there is a large amount of money tied up in the commissioning of BOF. ORP noted that the majority of the BOF buildings are complete, with some additional small areas of work going on to finish up some of the individual facilities. ORP pointed out that commissioning doesn't just include the individual BOF facilities, but also includes the joint commissioning of all the facilities together to provide the support network and support services for the operating plants PT, HLW and LAW. ORP stated that even though BOF will only be supporting LAW during the DFLAW configuration time period, there will still be the same complexities of integrated system commissioning. ORP noted that in addition there will be the DFLAW modifications that are taking place, which are not all included in the contract yet, and as the contract negotiations are completed there will be a reduction in the overall percent complete. Ecology asked if the 56 percent complete includes EMF. ORP responded that it includes the portions of EMF that have been negotiated into the contract, which is the design. ORP pointed out that EMF is much larger and more complex than any of the individual BOF components, and it is also the only radiological facility within BOF. ORP gave a rough estimate that the cost of EMF is about 30 percent of the entire cost of BOF. ORP also noted that there will be the upcoming expenses for DFLAW modifications to BOF, the majority of which are related to EMF when it comes to cost.

ORP stated that the current focus in BOF is the EMF, and design activities for EMF are ongoing in Reston, Virginia. Surveying and staking of the area for the EMF is under way, and excavation is set to start in the early January 2016 time frame. ORP noted that the excavation is about three months ahead of originally planned in the schedule, which doesn't necessarily correlate to being three months ahead of schedule, but it will help mitigate any future issues in the construction arena. ORP noted that current excavation activities are associated with evaluating the soil conditions before full excavation begins.

ORP stated that it has been working closely with Ecology regarding the permitting process, and time frames for transmitting material and reviews have been provided to Ecology. ORP noted that the engineering team in Reston has been working hard to ensure the appropriate engineering documents are being provided to support the permitting effort.

ORP stated that it is at a critical point for the EMF regarding the effort to release the Rev. 0 documents which will support procurement for the long lead equipment. ORP noted that two key aspects are submission of the preliminary documented safety analysis (PDSA) and completion of the system description drawings (SDDs) as applicable to the procurements. ORP

stated that everything is complete except the PDSA, and daily meetings are being held with Bechtel to review and discuss the PDSA. ORP indicated that Bechtel should be submitting the PDSA early next week. Ecology asked how many systems are broken out in Rev. 0. ORP estimated that there were about seven, and stated that it will follow up with Ecology's inquiry.

Ecology Request 2: ORP to follow up with Ecology on the number of systems included in Rev. 0.

ORP stated that the first step towards the process of initiating startup and commissioning activities within BOF is site energization, which is scheduled for the April 2016 time frame. ORP noted that the order in which the startup and commissioning activities occur to bring up BOF in support of the processing facilities has been discussed over the last couple years, and the order is called the waterfall. ORP stated that Bechtel is working through any final items that might be outstanding in Building 87, which is the first place that the power comes in from the outer Hanford site to the WTP site.

Ecology asked if ORP had a sense about what the power distribution over time will be to all the facilities, once building 87 is energized. ORP responded that Building 87 acts as a central hub for power distribution to the overall WTP site, and directly supplies the processing facilities of LAW, PT and HLW, and will also directly supply power to the EMF. In addition, Building 87 will supply power to Building 91, and Building 91 will then act as the switch gear building for all of BOF, with the exception of EMF.

10.0 ANALYTICAL LABORATORY

ORP stated that the overall percent complete for the Analytical LAB is dollar-based, and that a large portion of the LAB costs are tied up in the analytical equipment that will be installed in the fume hoods and other areas that are already constructed. ORP noted that the LAB is very close to 100 percent construction complete, and it is just waiting on the analytical equipment.

ORP reported on one activity in LAB is the development of a temporary engineering test station that will support some of the early startup and commissioning activities within BOF. The test station will not be a control room, but it will have some controls capabilities.

ORP stated that there will be some walk-downs of individual LAB systems conducted to look for isolations that are needed to ensure that the proper isolations in the hot cell are in place. The isolations are needed to ensure no damage is done during maintenance or installation of equipment in the hot cell while operations are occurring in the radiological area during the DFLAW time frame.

ORP reported that a new effort that was recently initiated is developing the procedures for methods development, which will be followed by further methods development and then methods validation after the equipment is brought into the LAB. ORP stated that the procedure development is to ensure that the processes are correct prior to starting the individual methods development. ORP added that methods development will provide the analytical validation to ensure that a method being applied to a component will get the results needed with the appropriate accuracy.

Calendar Year 2016 Hanford Federal Facility Agreement and Consent Order
(Tri-Party Agreement)
ORP TPA Project Managers' Monthly Meeting Meeting Schedule

DATE	
January 21, 2016 (Thursday)	Monthly Meeting (@ ORP)
February 18, 2016 (Thursday)	Quarterly Milestone Review (@ Ecology)
March 16, 2016 (Wednesday)	Monthly Meeting (@ ORP)
April 21, 2016 (Thursday)	Monthly Meeting (@ ORP)
May 19, 2016 (Thursday)	Quarterly Milestone Review (@ Ecology)
June 15, 2016 (Wednesday)	Monthly Meeting (@ ORP)
July 21, 2016 (Thursday)	Monthly Meeting (@ ORP)
August 18, 2016 (Thursday)	Quarterly Milestone Review (@ Ecology)
September 14, 2016 (Wednesday)	Monthly Meeting (@ ORP)
October 20, 2016 (Thursday)	Monthly Meeting (@ ORP)
November 17, 2016 (Thursday)	Quarterly Milestone Review (@ Ecology)
December 14, 2016 (Wednesday)	Monthly Meeting (@ ORP)

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – December 2015

Agreements:

1. Per an ECY standing request, ORP agrees to include any written directives given by DOE to the contractors for work required by the CD in future Semi-Annual CD Reports (see CD Section IV-C-1-e, page 8).
2. The ORP and ECY PMs have developed, signed, and entered an outline for the CD Tank Completion Certification into the TPA Administrative Record. Senior management will continue to be briefed if any follow-on actions arise.

Issues:

1. Ecology has a concern with WTP data being reported exclusively in the CD Monthly Summary Report as the current CD reporting process does not allot ECY early review time of the CD Monthly Summary Report. ORP and ECY have raised this concern for discussion at the senior management levels.
2. Ecology disagrees with ORP's letter 15-WSC-0027 and the System Plan.

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – December 2015

Tank Farms Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
1	TF-14-06-02	06/19/14	Schedule an oversight opportunity with ORP and ECY for the Waste Management Area (WMA)-C performance assessment (PA) modeling	Open	Meetings were held on 09/11/14, 10/30/14, and 12/16/14. WMA-C PA workshop held 01/28 and 01/29/15. Additional meetings held 03/10/15, 06/02/15, 06/17/15, 07/09/15, and 09/10/15. This action remains open and will continue status on this task in both ORP/ECY bi-weekly and a requested meeting with Whalen/Lyon on calibrating to the low end of the hydraulic conductivity curve.	Kemp / Beach	
2	TF-14-02-02	02/18/14	ECY would like a schedule/project management plan (if available) for the closure of WMA C and milestone M-045-83.	Open	Draft closure schedule will be provided to ECY by 12/31/2015.	Beach	
3	TF-13-12-01	12/19/13	ECY will provide a list of team members and their roles and responsibilities to ORP so that ORP can provide all applicable invitees to future meetings.	Open	It was noted in the 9-8-15 TPA Milestone meeting that Ecology provided a list of team members, and that this action would be kept open as a reminder to keep the list of team members up to date.	Lyon / McDonald	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – December 2015

Tank Farms Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
4	TF-13-02-03	02/21/13	ECY and ORP will continue to meet at the project manager level to discuss work on the WMA C PA (see TF-14-06-02) and other options for M-045-82.	Open	ORP and ECY to schedule meeting in early June to discuss options for M-045-82. ECY has a draft TPA change package and commitment from Price/Kemp to meet between TPA PMs in June when Jeff Lyon returns from leave/training. ORP and ECY met on 06/18/15 to discuss draft change control form M-45-15-03 that proposed modifying milestone M-045-82. ORP delivered signed change control form M-45-15-03 to ECY on 06/30/15.	Beach / Price	
6	TF-15-03-05	03/18/15	ECY would like to obtain technical white papers supporting LAWPS design.	Open		Pfaff/ Diediker	
7	TF-15-06-01	06/15/15	ECY would like to be included in future Low-Activity Waste Pretreatment System (LAWPS) work discussions and meetings.	Open		Pfaff/ Diediker	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – December 2015

Tank Farms Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
8	TF-15-07-03	07/16/15	ECY requests the information ORP is using to select retrieval technologies. This request stems from Ecology's disagreement with the statement in letter TF-15-058 that the current body of knowledge compiled in the Best Basis Inventory is sufficient to plan retrieval actions to develop Tank Waste Retrieval Work Plans.	Open		Beach	
9	TF-15-10-01	10/15/15	ECY requested a discussion regarding ETF tanks 109 and 117	Open		Richard Valle	
10	TF-15-10-02	10/15/15	ECY requests ORP provide information regarding plans and concepts for LERF/ETF to be ready to accommodate Direct Feed Low Activity Waste (DFLAW).	Open		Wendell Wrzesinski	
11	TF-15-10-03	10-15-15	ECY requests ORP provide information regarding the LERF basin covers, including the target and plan to reduce inventory in the basins.	Open		Richard Valle	

ORP/Ecology TPA and CD Agreements, Issues, and Action Items – December 2015

WTP Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
1	WTP-14-10-01	10/23/14	ECY requests information on DOE's plans and timeline for the Low Activity Waste (LAW) (replacement) melter assembly building.	Open	An engineering study conducted in 2008 will be provided to Ecology. Additional information on replacements plans will also be provided to Ecology.	Wendell Wrzesinski	
2	WTP-14-10-02	10/23/14	ECY would like to know what the plans are for operating BOF in support of DFLAW and then transitioning into full WTP operations.	Open	It was agreed that ORP and Ecology would meet to develop an outline of the information that is needed to close this action.	Jason Young	
3	WTP-14-10-03	10/23/14	ECY and ORP need to discuss how to document Analytical Laboratory (LAB) substantially complete milestone after completion of radioactive liquid waste disposal (RLD) vessel repairs.	Open	This issue is impacted by the ongoing CD judicial process. ORP provided Ecology with the requested information concerning repairs to the RLD vessels. Ecology will internally discuss what is needed to close this action.	Jason Young	
4	WTP-14-10-04	10/23/14	ECY requests a status update to include a schedule on the 8 technical team issues for High Level Waste (HLW) and Pretreatment (PT).	Open	Completed for HLW. This issue is impacted by the ongoing CD judicial process.	Dan Knight	

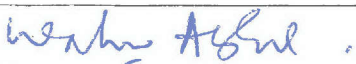
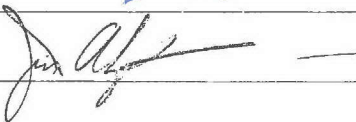
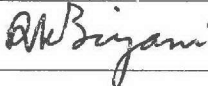
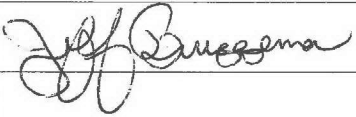
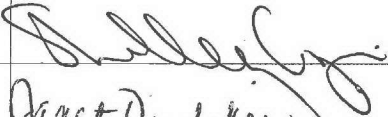
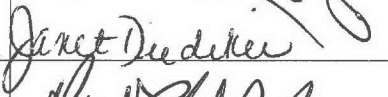
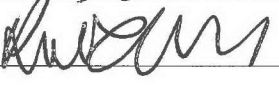

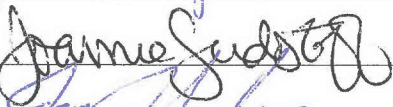
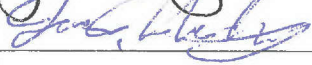

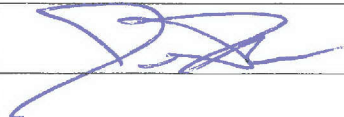


ORP/Ecology TPA and CD Agreements, Issues, and Action Items – December 2015

WTP Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
5	WTP-14-10-05	10/23/14	ECY requests on update on the details of the 2-year work plan for HLW and PT.	Open	Completed for HLW. This issue is impacted by the ongoing CD judicial process.	Dan Knight	
6	WTP-14-06-02	06/19/14	ECY requests that DOE provide a presentation on how DOE incorporates, vets, and considers all technical issues (including the Safety Design Strategy).	Open		Joni Grindstaff	
7	WTP-14-06-03	06/19/14	ECY requests a briefing on the LAW Design and Operability review before the September timeframe.	Closed	ECY was informed that a briefing will not be provided at the Quarterly Milestone Review.	Jeff Bruggeman	11/19/15
8	WTP-14-04-01	04/22/14	ORP and ECY have a placeholder action to hold a comprehensive briefing/discussion on the PT efforts.	Open	ORP will follow-up with Ecology to further define and clarify this action so that it can be address and closed.	Joni Grindstaff	
9	WTP-15-01-01	1/22/15	ECY requests a presentation on standardized high-solids vessel design (SHSVD) to include impacts and optimization in planning area 2, 3, and 4	Open	Impacts will be better understood once the design studies are issued.	Dan Knight	
10	WTP-15-01-03	1/22/15	ECY requests a technical update on the LAB RLD vessels	Open	ORP suggested that this action be closed, and that any additional discuss on the RLD vessels could be moved to Action 3. Ecology will internally discuss the suggestion and provide an update at the next meeting.	Jason Young	

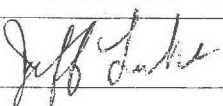





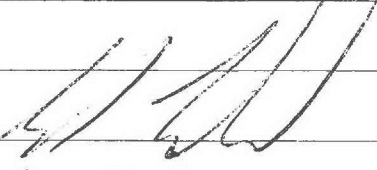


ORP/Ecology TPA and CD Agreements, Issues, and Action Items – December 2015

WTP Action Items							
#	Action ID	Start Date	Action	Action Status	Updates / Needs for Closure	Actionee(s)	Date Closed
11	WTP-15-06-01	06/15/15	ORP took an action to provide ECY a copy of the corrosion simulant basis document.	Open	Results are now expected in late December 2015.	Dan Knight	
12	WTP-15-06-02	06/15/15	ECY would like to understand how the bounding conditions for the HEPA filters were identified.	Open	Results of the HEPA filter analysis are expected in the December 2015/January 2016 timeframe.	Wahed Abdul	

16 December 2015
TPA CD Monthly Meeting

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16 December 2015
TPA CD Monthly Meeting

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TPA CD Monthly Meeting

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FINAL

**Office of River Protection
Consent Decree 08-5085-FVS**

Monthly Summary Report

December 2015

Office of River Protection

Consent Decree 08-5085-FVS
Monthly Summary ReportDecember 2015 (Monthly Summary Report/Project Earned Value Management System
reflects October 2015 information)

Page	Topic	Leads
3	CD Milestone Statistics/Status	Bryan Trimberger/Dan McDonald/Jeff Lyon
3	Consent Decree Reports/Reviews	
4	Single-Shell Tank Retrieval Program • D-00B-01, D-00B-02, D-00B-03, D-00B-04	Jeremy Johnson/Jeff Lyon
5	Tank Waste Retrieval Work Plan Status • Consent Decree Appendix C	Jeremy Johnson/Jeff Lyon
9	Waste Treatment and Immobilization Plant Project • D-00A-06, D-00A-17, D-00A-01	Joni Grindstaff/Dan McDonald
12	Pretreatment Facility • D-00A-18, D-00A-19, D-00A-13, D-00A-14, D-00A-15, D-00A-16	Dan Knight/Dan McDonald
15	High-Level Waste Facility • D-00A-20, D-00A-21, D-00A-02, D-00A-03	Wahed Abdul/Dan McDonald
18	Low-Activity Waste Facility • D-00A-07, D-00A-08, D-00A-09	Jeff Bruggeman/Dan McDonald
20	Balance of Facilities • D-00A-12	Jason Young/Dan McDonald
22	Analytical Laboratory • D-00A-005	
24	Waste Treatment Plant Project Percent Complete Status (Table)	

CD Milestone Statistics/Status

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2014				
D-00B-01	Complete Retrieval of Tank Waste from 10 SSTs in WMA-C	09/30/2014		Past Due
D-00B-02	Advise Ecology of the Nine SSTs Waste will be Retrieved by 2022	09/30/2014	08/24/2011	Completed
Fiscal Year 2015				
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014		Past Due
D-00A-19	Complete elevation 98 feet Concrete Floor Slab Placements in PT Facility	12/31/2014		Past Due
Fiscal Year 2016				
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015		Ongoing
Fiscal Year 2017				
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016		Ongoing

CD = Consent Decree.

Ecology = Washington State Department of Ecology.

HLW = high-level waste.

LAW = low-activity waste.

PT = pretreatment.

SST = single-shell tank.

WMA-C = C Farm waste management area.

Consent Decree Reports/Reviews

D-00C-01 series, Submit to State of Washington and State of Oregon Semi-Annual Report, Due: Semiannually – January 31 and July 31 of each year, Status: Ongoing. The July 2015 Semiannual Report was issued on July 31, 2015, via U.S. Department of Energy (DOE), Office of River Protection (ORP) letter 15-ECD-0037, “July 2015 Semi-Annual Report for State of Washington vs. U.S. Department of Energy, Case No. 08-5085-FVS, for Waste Treatment and Immobilization Plant Construction and Startup Activities and Tank Retrieval Activities – November 1, 2014, thorough April 30, 2015.”

D-00C-02 series, Submit to State of Washington and State of Oregon Monthly Summary Reports, Due: End of each month, Status: Ongoing.

D-006-00-B1, Provide State of Oregon notice of meetings in D-006-00-B, etc. no less than 30 days before they are scheduled, Due: September 25, 2016, Status: On Schedule.

D-006-00-B, Meet Approximately Every Three Years after Entry of Decree to review requirements of the Consent Decree, Due: October 25, 2016, Status: On Schedule.

Single-Shell Tank Retrieval Program

Milestone	Title	Due Date	Status
D-00B-01	Complete Retrieval of Tank Wastes from 10 Remaining SSTs in WMA-C	September 30, 2014	Past Due
D-00B-01A through D-00B-01J	Submit Tank Retrieval Complete Certification	One year following each retrieved tank retrieval completion report ^a	Ongoing
D-00B-02	Advise Ecology of the Nine SSTs from which Waste Will Be Retrieved by 2022	September 30, 2014	Completed
D-00B-03	Initiate Startup of Retrieval in At Least 5 of 9 SSTs in D-00B-02	December 31, 2017	Ongoing*
D-00B-04	Complete Retrieval of Tank Wastes from the nine SSTs in D-00B-02	September 30, 2022	Ongoing*
D-00B-04A through D-00B-04I	Submit Tank Retrieval Complete Certification	TBD	TBD

- a. Pursuant to Section IV-B-5 of the Consent Decree, the U.S. Department of Energy (DOE) must submit to the Washington State Department of Ecology (Ecology) a written certification that DOE has completed retrieval of a tank in accordance with the requirements of Appendix C, Part 1, of the Consent Decree.
Completed for Single-Shell Tank (SST) C-104 on March 21, 2013, via DOE Office of River Protection (ORP) letter 13-TF-0018. Completed for SST C-108 on May 1, 2013, via ORP letter 13-TF-0025. Completed for SST C-109 on June 4, 2013, via ORP letter 13-TF-0037. Completed for SST C-110 on January 29, 2014, via ORP letter 14-TF-0007. Completed for SST C-107 on September 30, 2014, via ORP letter 14-TF-0114. Completed for SST C-112 on September 30, 2014, via ORP letter 14-TF-0115.

SST = single-shell tank.

TBD = to be determined.

WMA-C = C Farm waste management area.

Significant Past Accomplishments:

- Ecology approved practicability evaluation request to forego a third retrieval technology in Tank 241-C-102.
- Retrieved an approximately 45 percent of waste from Tank 241-C-105 utilizing the Mobile Arm Retrieval System – Vacuum (MARS- V) and high-pressure water.
- Completed extended reach sluicing system (ERSS) installation and operational testing for Tank 241-C-111.

- Resumed retrieval operations at Tank 241-C-111 and removed an estimated 2K gallons of waste during October, 33K gallons of waste remain.
- Completed C-101, C-107, and C-112 retrieval data reports (RDR).
- Isolated two legacy duct ventilation lines at AX Farm.

Significant Planned Activities in the Next Six Months:

- Finish a Tank 241-C-105 systems engineering evaluation of the current retrieval method; will potentially need a revised tank waste retrieval work plan due to recent MARS-V failure.
- Begin startup of hard heel retrieval in Tank 241-C-111 using high-pressure water, with caustic/water dissolution in early October 2015.

Issues:

*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Complete	MARS-V	MARS-V-High Pressure Water Spray	-
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S-High Pressure Water Spray	Water Dissolution
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = extended reach sluicing system.
MARS = Mobile Arm Retrieval System.
S = sluicing.

TWRWP = Tank Waste Retrieval Work Plan.
V = vacuum.

Significant Accomplishments:

None.

Significant Planned Activities in the Next Six Months:

- Finalize AX-Farm TWRWP.

Issues:

None.

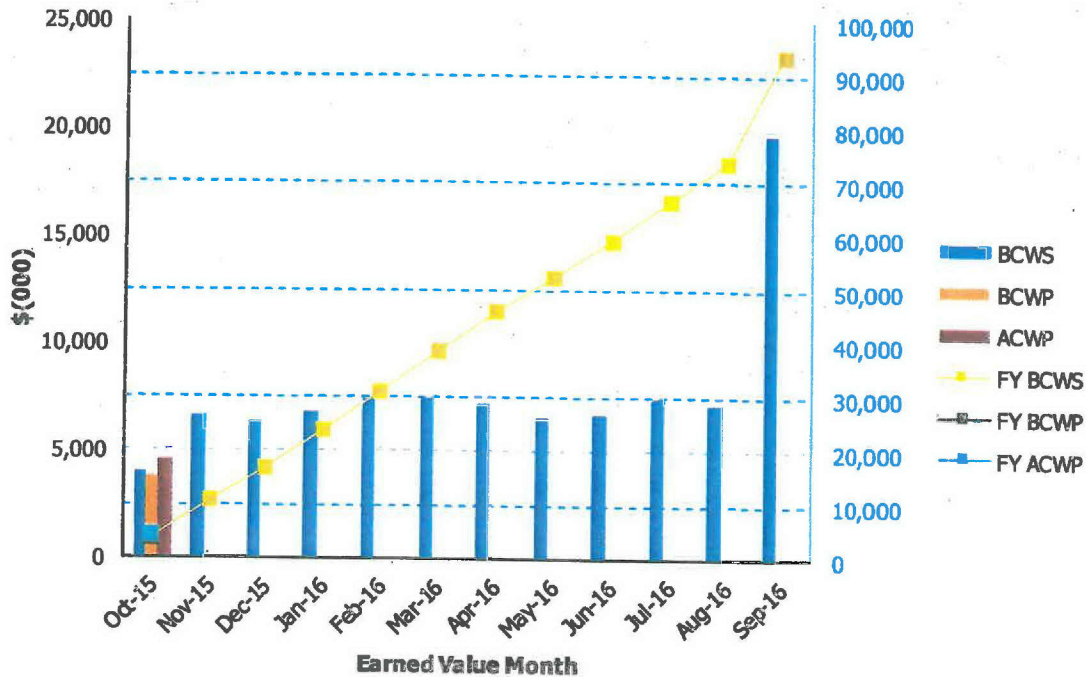
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

October-15

Tank Farms ORP-0014
Retrieve and Close SST's 5.02

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$3,972	\$3,814	\$4,560	0.96	0.84	\$3,972	\$3,814	\$4,560	0.96	0.84
Nov 2015	\$6,619	\$0	\$0	0.00	0.00	\$10,591				
Dec 2015	\$6,338	\$0	\$0	0.00	0.00	\$16,929				
Jan 2016	\$6,764	\$0	\$0	0.00	0.00	\$23,693				
Feb 2016	\$7,470	\$0	\$0	0.00	0.00	\$31,163				
Mar 2016	\$7,418	\$0	\$0	0.00	0.00	\$38,580				
Apr 2016	\$7,219	\$0	\$0	0.00	0.00	\$45,800				
May 2016	\$6,564	\$0	\$0	0.00	0.00	\$52,364				
Jun 2016	\$6,710	\$0	\$0	0.00	0.00	\$59,073				
Jul 2016	\$7,500	\$0	\$0	0.00	0.00	\$66,573				
Aug 2016	\$7,215	\$0	\$0	0.00	0.00	\$73,788				
Sep 2016	\$19,745	\$0	\$0	0.00	0.00	\$93,532				

ACWP = actual cost of work performed.
 BCWS = budgeted cost of work scheduled.
 BCWP = budgeted cost of work performed.
 CPI = cost performance index.

EVMS = earned value management system.
 FY = fiscal year.
 SPI = schedule performance index.

Retrieve and Close Single-Shell Tanks

The current month unfavorable schedule variance (SV) of (\$158K) is within the reporting threshold.

The current month unfavorable cost variance (CV) of (\$745K) is due to:

- Retrieval operations briefly resumed at Tank-241-C-111 on October 4, 2015 and an estimated 2K gallons were removed from the tank until a hydraulic leak was realized. The project team is required to maintain the retrieval crew during non-retrieval operations to monitor and maintain retrieval equipment. Performance is based on retrieval operations (gallons retrieved).

Waste Treatment and Immobilization Plant Project

Number	Title	Due Date	Status
D-00A-06	Complete Methods Validations	12/31/2017	Ongoing*
D-00A-17	Hot Start of Waste Treatment Plant	12/31/2019	Ongoing*
D-00A-01	Achieve Initial Plant Operations for WTP	12/31/2022	Ongoing*

WTP = Waste Treatment and Immobilization Plant.

The Waste Treatment and Immobilization Plant (WTP) Project currently employs approximately 2,967 full-time equivalent contractor (Bechtel National, Inc. [BNI]) and subcontractor personnel. This includes 661 craft, 429 non-manual, and 159 subcontractor full-time equivalent personnel working at the WTP construction site (all facilities).

In October 2012, the percent-complete values for Pretreatment (PT) and High-Level Waste (HLW) facilities were frozen at the September 2012 rate. Construction, procurement, and production engineering activities were placed on hold for PTF and significantly slowed down for HLW. In August 2014, the U.S. Department of Energy (DOE) approved continuation of production engineering activities for HLW. Subsequently, DOE has approved the fiscal year (FY) 2015 and FY 2016 2-Year Interim Work Plan. In April 2015, a 3-Year Interim Work Plan for the PT Facility was implemented emphasizing prioritization of technical issue resolution activities. The WTP Project is focused on resolving PT Facility technical issues and finalizing HLW Facility design.

The WTP Project continues to focus on completion of the Low-Activity Waste (LAW) Facility, Analytical Laboratory (LAB), and Balance of Facilities (BOF) (collectively LBL). As of October 2015, LBL facilities were 51 percent complete, design and engineering was 79 percent complete, procurement was 72 percent complete, construction was 80 percent complete, and startup and commissioning was 8 percent complete.

In October 2015, the cumulative to-date WTP Project schedule variance was a negative \$21.8 million, and the cumulative to-date WTP Project cost variance was a positive \$59.0 million. The cumulative to-date cost and schedule variance is based on the progress of the LBL internal forecast.

The following is the project status through the end of October 2015.

Significant Past Accomplishments:

- Welding and insulation of the thermal catalytic oxidizer (TCO) housing units are complete (LAW)
- Completed annex control/server room electrical tray installation (LAW)
- Completed two concrete placements (wall 3132 and slab 4001) (HLW)
- Installed 16 tons of structural steel (HLW)
- Issued PT T2 Criticality Calculation Report (PT)

Significant Planned Actions in the Next Six Months:

- Receive caustic scrubber (LAW)
- Assemble and install wet electrostatic precipitator internals (LAW)
- Receive the thermal catalytic oxidizer (TCO) and ammonia skid
- Complete EMF Preliminary Documented Safety Analysis (PDSA) (BOF)
- Begin excavation for EMF (BOF)
- Complete site energization from permanent power supply (BOF)
- Begin LAB system walk downs in support of DFLAW modifications (LAB)
- Begin full scale high-efficiency particulate air (HEPA) filter testing in accordance with the HEPA Filter Test Plan at the Mississippi State University facility (HLW)
- Initiate HLW melter off-gas treatment process/process vessel vent (HOP/PVV) design study (HLW)
- Complete criticality safety evaluation engineering study for ultrafiltration process system (UFP)/HLW lag storage and feed blending process (HLP)/plant wash and disposal system (PWD) with controls (PT)
- Complete hydrogen control strategy gap analysis (engineering study includes gap analysis and post design basis event [DBE] ventilation and air requirements) (PT).

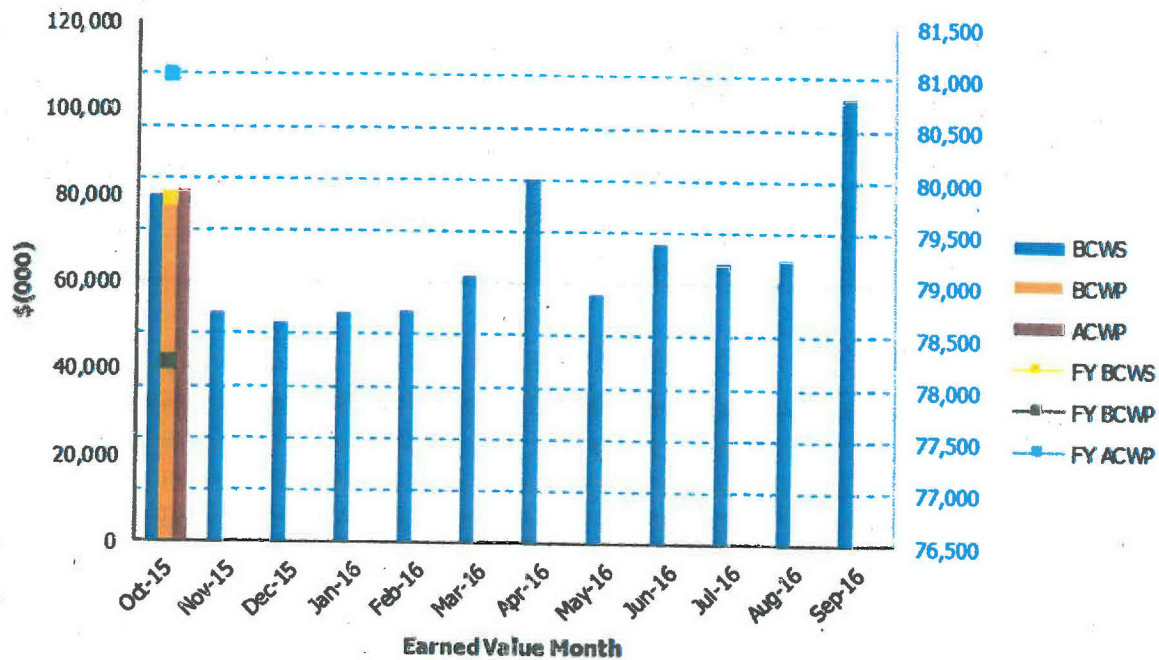
Issues:

*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to WTP include, among others, pulse-jet mixers (PJM), corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: October 2015

**River Protection Project
Waste Treatment Plant (WTP) Project****EVMS Monthly and Fiscal Year Values**

Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$79,800	\$78,230	\$81,000	0.98	0.97	\$79,800	\$78,230	\$81,000	0.98	0.97
Nov 2015	\$52,815									
Dec 2015	\$50,809									
Jan 2016	\$52,793									
Feb 2016	\$53,490									
Mar 2016	\$61,709									
Apr 2016	\$84,140									
May 2016	\$57,512									
Jun 2016	\$69,369									
Jul 2016	\$65,038									
Aug 2016	\$65,824									
Sep 2016	\$103,533									

PTD \$9,179,564 \$9,157,777 \$9,098,802 1.00 1.01

Pretreatment Facility

Number	Title	Due Date	Status
D-00A-19	Complete Elevation 98' Concrete Floor Slab in PT Facility	12/31/2014	Past Due
D-00A-13	Complete Installation of Pretreatment Feed Separation Vessels	12/31/2015	Ongoing*
D-00A-14	PT Facility Construction Substantially Complete	12/31/2017	Ongoing*
D-00A-15	Start PT Facility Cold Commissioning	12/31/2018	Ongoing*
D-00A-16	PT Facility Hot Commissioning Complete	12/31/2019	Ongoing*

PT = pretreatment.

The PT will separate radioactive tank waste into HLW and LAW fractions, and transfer each waste type to the respective vitrification facility for immobilization. As of September 2012, the PT Facility was 56 percent complete overall, with engineering design 85 percent complete, procurement 56 percent complete, construction 43 percent complete, and startup and commissioning 3 percent complete. Construction, procurement, and production engineering activities remain on hold, resulting in no change to the percent-complete status since September 2012. BNI and DOE continue to focus on resolving technical issues, performing hazard analyses, and completing safety evaluations for process systems in accordance with the revised PT Facility 3-Y Interim Work Plan

BNI has submitted resolution plans for eight technical issues: T1, Hydrogen in Vessels; T2, Criticality; T3, Hydrogen in Piping and Ancillary Vessels (HPAV); T4, Mixing; T5, Erosion Corrosion; T6, PT Facility Optimization; T7, Vessel Analysis; and T8, Ventilation. Phase 1 of the Full-Scale Vessel Testing is continuing for the PJM controls utilizing the RLD-8T vessel. Technical review teams continue to evaluate open PT Facility technical issues. An evaluation is ongoing relative to a standardized design for high-solids vessels within the PT Facility. With primary emphasis on design and fabrication of hold point releases supporting procurement, fabrication and delivery of the standardized high solids vessel design (SHSVD)-T16ft vessel.

Significant Past Accomplishments:

- Issued PT T2 Criticality Calculation Report
- Completed first Phase 2 test
- Completed SHSVD info testing and identify design features
- Started PJM fabrication
- Started PJM Controls Phase 3 test

Significant Planned Actions in the Next Six Months:

- Complete criticality safety evaluation engineering study for UFP/HLP/PWD with controls
- Complete hydrogen control strategy gap analysis (engineering study includes gap analysis and post DBE ventilation and air requirements)
- Receive technical issue closure work packages T1 and T3
- Issue Phase 2 PJM controls study
- Complete sliding bed evaluation report and brief ORP
- Issue SHSVD Design Verification Guide
- Issue updated Erosion/Corrosion Risk Assessment

Issues:

*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

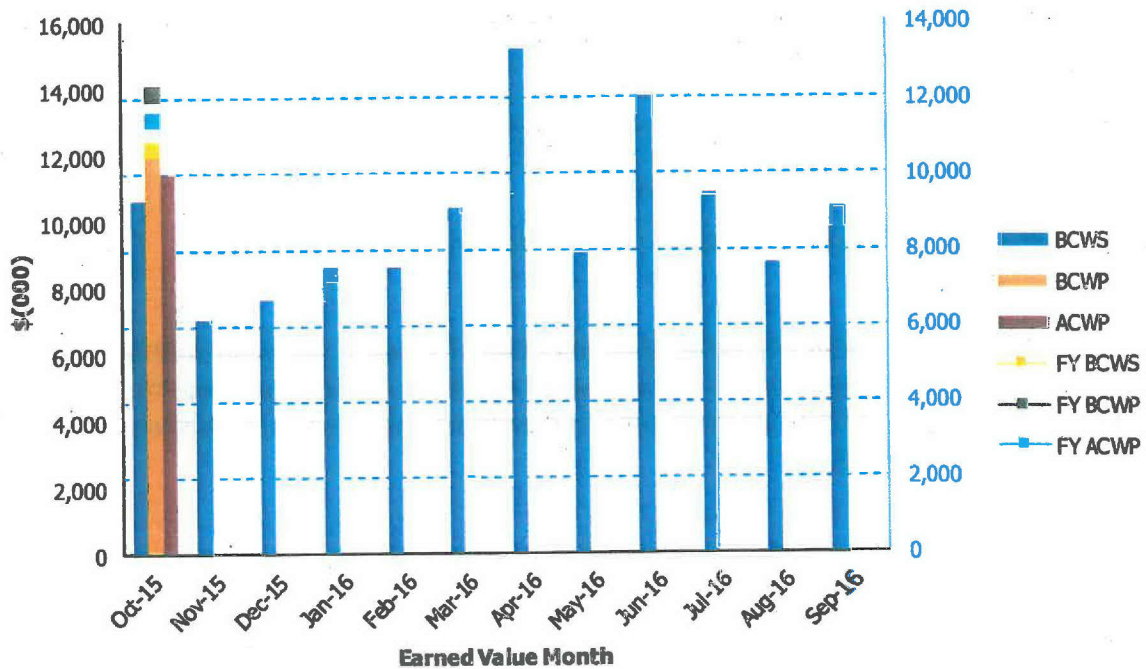
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: October 2015

River Protection Project Pretreatment Facility (WBS 1.01)
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EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$10,667	\$12,155	\$11,441	1.14	1.06	\$10,667	\$12,155	\$11,441	1.14	1.06
Nov 2015	\$7,074									
Dec 2015	\$7,678									
Jan 2016	\$8,595									
Feb 2016	\$8,625									
Mar 2016	\$10,398									
Apr 2016	\$15,196									
May 2016	\$9,087									
Jun 2016	\$13,766									
Jul 2016	\$10,826									
Aug 2016	\$8,731									
Sep 2016	\$10,437									
PTD	\$1,743,067	\$1,743,987	\$1,724,001	1.00	1.01					

High-Level Waste Facility

Number	Title	Due Date	Status
D-00A-21	Complete Construction of Structural Steel to 37' in HLW Facility	12/31/2012	Complete
D-00A-02	HLW Facility Construction Substantially Complete	12/31/2016	Ongoing*
D-00A-03	Start HLW Facility Cold Commissioning	6/30/2018	Ongoing*
D-00A-04	HLW Facility Hot Commissioning Complete	12/31/2019	Ongoing*

HLW = high-level waste.

The HLW Facility will receive the separated HLW concentrate from the PT Facility. This concentrate will be blended with glass formers, converted into molten glass in one of the two HLW melters, and then poured into cylindrical stainless steel canisters. After cooling, the canisters will be sealed and decontaminated before shipping to interim storage.

As of September 2012, the HLW Facility was 62 percent complete overall, with engineering design 89 percent complete, procurement 81 percent complete, construction 43 percent complete, and startup and commissioning 4 percent complete. Construction, procurement, and production engineering activities have been significantly slowed down, resulting in minimal change to the percent completion status since September 2012.

Currently, all activities are being performed in accordance with the FY 2015/FY 2016 2-Year Work Plan. Efforts are focused on completing activities required to obtain full production authorization by DOE. Limited construction is continuing with the concrete placements, installation of support steel, and crane rails in the canister decontamination cave and melter cave.

To support construction, Engineering continues to execute detailed evaluations of structural supports for future installation of heating, ventilation, and air-conditioning (HVAC); fire protection; process piping; and electrical commodities. Design activities are focused to support safety design strategy gap analysis, technical core team recommendations, and engineering study development to resolve design and operability reviews. One such study, the HLW Melter Offgas Treatment Process/Process Vessel Vent engineering study has been initiated to evaluate simplifying and improving the system design. Hazard and accident analyses are ongoing to support the Preliminary Documented Safety Analysis (PDSA) update to align design and the safety basis.

Systems engineering is incorporating requirements from system design descriptions (SDD) into a requirements management system to ensure that all requirements are verified at the completion of design.

Multiple filter media designs are planned to be tested to ensure that the qualified filters support the needs for HLW and LBL facilities. Fabrication of the first filter design has been completed, and full scale testing at MSU has been initiated. Fabrication of the remaining filters for testing is ongoing.

PDSA change package for the radioactive liquid waste disposal (RLD) vessels 7 and 8 is undergoing DOE review with approval expected in December 2015.

Significant Past Accomplishments:

- Initiated full scale testing of the first HEPA filter design
- Initiated high-level waste melter off gas treatment process/process vessel vent (HOP/PVV) engineering study
- Completed two concrete placements (wall 3132 and slab 4001)
- Installed 16 tons of structural steel

Significant Planned Actions in the Next Six Months:

- DOE approval of the RLD safety basis change package
- Complete installation of crane rails and supports in the canister decontamination cave
- Issue ETX system design description
- Issue the radioactive waste handling system engineering study
- Complete facility hazards analysis to support PDSA update

Issues:

*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone. Technical issues related to the WTP include, among others, PJMs, corrosion/erosion in piping and vessels, hydrogen accumulation, criticality, and ventilation.

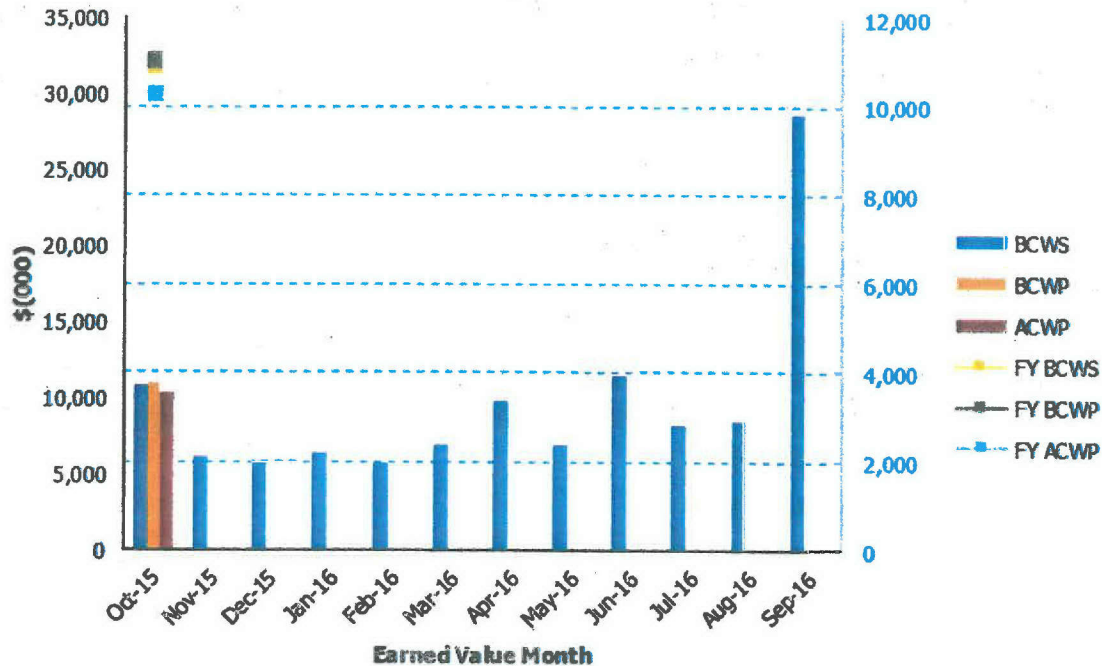
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: October 2015

River Protection Project High-Level Waste Facility (WBS 1.03)
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EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$10,905	\$11,028	\$10,257	1.01	1.08	\$10,905	\$11,028	\$10,257	1.01	1.08
Nov 2015	\$6,103									
Dec 2015	\$5,737									
Jan 2016	\$6,380									
Feb 2016	\$5,739									
Mar 2016	\$6,889									
Apr 2016	\$9,772									
May 2016	\$6,959									
Jun 2016	\$11,445									
Jul 2016	\$8,180									
Aug 2016	\$8,455									
Sep 2016	\$28,680									

PTD \$1,212,193 \$1,211,294 \$1,196,386 1.00 1.01

Low-Activity Waste Facility

Number	Title	Due Date	Status
D-00A-07	LAW Facility Construction Substantially Complete	12/31/2014	Past Due
D-00A-08	Start LAW Facility Cold Commissioning	12/31/2018	Ongoing*
D-00A-09	LAW Facility Hot Commissioning Complete	12/31/2019	Ongoing*

LAW = low-activity waste.

The LAW Facility will process LAW that will be mixed with glass formers, vitrified into glass at a design capacity of 30 metric tons per day and placed in stainless steel containers anticipated to be disposed of on the Hanford Site in the Integrated Disposal Facility. As of October 2015, the LAW Facility was 54 percent complete overall, with engineering design 78 percent complete, procurement 75 percent complete, construction 78 percent complete, and startup and commissioning 4 percent complete.

Significant Past Accomplishments:

- Installed 400 linear feet of process piping and hydro-tested 1,080 linear feet of piping
- Installed 1,430 linear feet of conduit and pulled 48,940 linear feet of cable
- Installed 130 process area penetration seals
- Welding and insulation of the thermal catalytic oxidizer (TCO) housing units are complete
- Completed annex control/server room electrical tray installation

Significant Planned Actions in the Next Six Months:

- Complete subcontractor work scope in the annex
- Receive caustic scrubber
- Assemble and install wet electrostatic precipitator internals
- Receive the TCO and ammonia skid

Issues:

*DOE has notified the State of Washington and State of Oregon that a serious risk has arisen that DOE may be unable to meet this Consent Decree milestone.

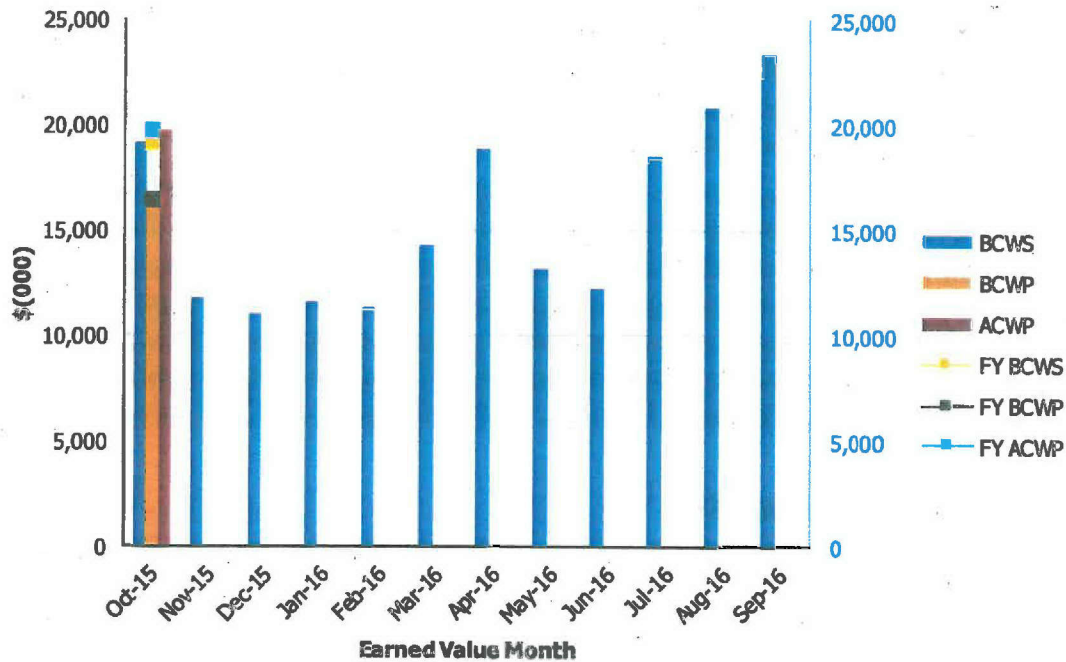
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: October 2015

River Protection Project
Low-Activity Waste Facility (WBS 1.02)

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$19,131	\$16,406	\$19,702	0.86	0.83	\$19,131	\$16,406	\$19,702	0.86	0.83
Nov 2015	\$11,764									
Dec 2015	\$11,009									
Jan 2016	\$11,611									
Feb 2016	\$11,348									
Mar 2016	\$14,280									
Apr 2016	\$18,855									
May 2016	\$13,170									
Jun 2016	\$12,224									
Jul 2016	\$18,532									
Aug 2016	\$20,849									
Sep 2016	\$23,365									
PTD	\$1,237,330	\$1,224,661	\$1,221,191	0.99	1.00					

Balance of Facilities

Number	Title	Due Date	Status
D-00A-12	Steam Plant Construction Complete	12/31/2012	Complete

The BOF will provide services and utilities to support operation of the main production facilities: PT, HLW, LAW, and LAB. As of October 2015, BOF was 56 percent complete overall, with engineering design 81 percent complete, procurement 71 percent complete, construction 81 percent complete, and startup and commissioning 15 percent complete.

Engineering activities are in progress to develop the preliminary design for BOF systems in support of DFLAW. Current efforts are focused on progressing the design of the Effluent Management Facility (EMF), defining the required BOF system isolations, preparing procurements, and initiating the Preliminary Design Safety Analysis (PDSA) process for EMF. Construction efforts are focused on initiation of BOF system isolations and completion of the remaining punch list items required to support turnover of all major systems within the Nonradioactive Liquid Waste Disposal Facility, WTP switchgear, and BOF switchgear buildings for component level testing.

Significant Past Accomplishments:

- Continued excavation and drilling activities to install cathodic protection system upgrades
- Installed 640 linear feet of pipe insulation
- Installed 510 linear feet of conduit and 950 linear feet of cable
- Continued switchgear testing in support of site energization

Significant Planned Actions in the Next Six Months:

- Complete EMF PDSA
- Begin excavation for EMF
- Complete site energization from permanent power supply

Issues:

No major issues at this time.

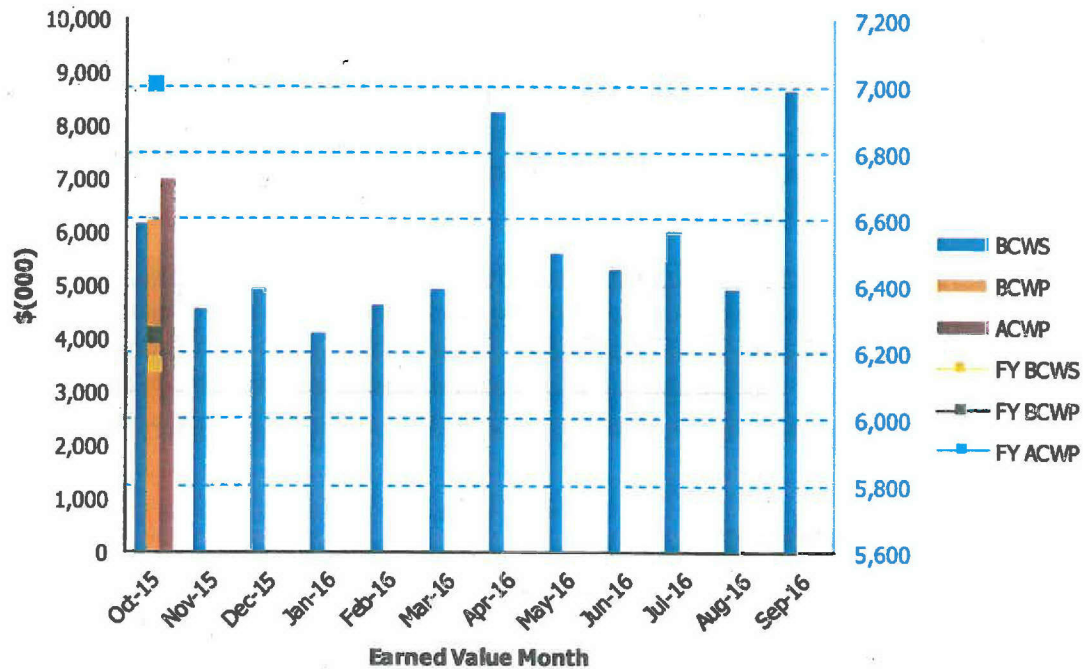
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: October 2015

River Protection Project	
Balance of Facilities (WBS 1.05)	

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$6,160	\$6,249	\$7,006	1.01	0.89	\$6,160	\$6,249	\$7,006	1.01	0.89
Nov 2015	\$4,555									
Dec 2015	\$4,920									
Jan 2016	\$4,110									
Feb 2016	\$4,630									
Mar 2016	\$4,920									
Apr 2016	\$8,266									
May 2016	\$5,599									
Jun 2016	\$5,297									
Jul 2016	\$6,007									
Aug 2016	\$4,921									
Sep 2016	\$8,687									
PTD	\$435,654	\$431,450	\$430,629	0.99	1.00					

Analytical Laboratory

Number	Title	Due Date	Status
D-00A-05	LAB Construction Substantially Complete	12/31/2012	Complete

LAB = Analytical Laboratory.

The LAB will support WTP operations by analyzing feed, vitrified waste, and effluent streams. As of October 2015, the LAB was 60 percent complete overall, with engineering design 84 percent complete, procurement 87 percent complete, construction 96 percent complete, and startup and commissioning 10 percent complete.

During this reporting period engineering efforts are focused on LAB system reviews to evaluate potential modifications or isolations in support of the direct feed of LAW. Closure of nonconformance reports and construction deficiency reports continued. Construction efforts within the LAB are minimal. The remaining construction work scope will be completed in parallel with system modifications and construction activities required to support the direct feed of LAW.

Significant Past Accomplishments:

- Continued development of the test engineers workstation
- Continued development of procedures for the WTP analytical methods development process
- Continued final preparations for submitting remaining HVAC Quality Verification Report Packages (QVRPs)

Significant Planned Actions in the Next Six Months:

- Initiate component level testing of select LAB systems
- Complete LAB system walk downs in support of DFLAW modifications

Issues:

No major issues at this time.

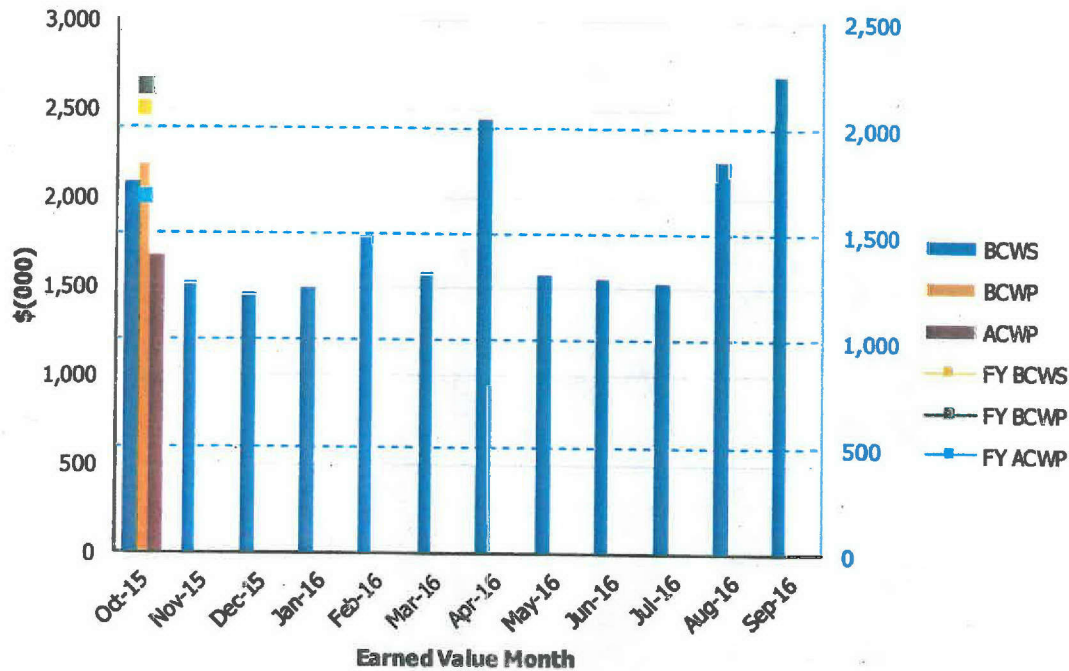
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

Data as of: October 2015

**River Protection Project
Analytical Laboratory (WBS 1.06)**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$2,083	\$2,188	\$1,674	1.05	1.31	\$2,083	\$2,188	\$1,674	1.05	1.31
Nov 2015	\$1,528									
Dec 2015	\$1,462									
Jan 2016	\$1,489									
Feb 2016	\$1,779									
Mar 2016	\$1,579									
Apr 2016	\$2,449									
May 2016	\$1,573									
Jun 2016	\$1,543									
Jul 2016	\$1,520									
Aug 2016	\$2,208									
Sep 2016	\$2,697									
PTD	\$314,648	\$313,107	\$310,023	1.00	1.01					

Waste Treatment Plant Project Percent Complete Status (Table)

Waste Treatment Plant Project - (LBL/Project Services) Percent Complete Status Through October 2015

(Dollars - Millions)	Overall Facility Percent Complete Unallocated Dollars			Design/Engineering Unallocated Dollars			Procurement Unallocated Dollars			Construction Unallocated Dollars			Startup & Plant Operations Unallocated Dollars			Project Management & Shared Services Unallocated Dollars		
	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete	Performance Measurement Baseline (PMB)	Budgeted Cost of Work Performed (BCWP)	% Complete
Facilities																		
Low-Activity Waste	2,129.8	1,149.7	54%	478.2	370.7	78%	341.4	254.9	75%	628.6	489.6	78%	677.6	30.5	4%	4.0	4.0	100%
Balance of Facilities	721.4	403.7	56%	133.4	108.5	81%	75.8	53.9	71%	249.0	201.7	81%	262.7	39.1	15%	0.5	0.5	100%
Analytical Lab	506.2	305.1	60%	93.5	78.8	84%	65.6	56.8	87%	156.0	149.4	96%	190.7	19.7	10%	0.5	0.5	100%
LBL Facility Services	438.7	67.0	15%	0.0	0.0	0%	42.6	11.3	27%	31.8	8.0	25%	241.7	22.9	9%	122.8	24.76	20%
Total LBL	3,796.1	1,925.5	51%	705.0	558.1	79%	525.4	376.9	72%	1,065.5	848.7	80%	1,372.7	112.1	8%	127.6	29.7	23%
Direct Feed LAW	89.3	22.0	25%	61.6	18.9	31%	7.48	0.08	1%	15.8	1.9	12%	0.0	0.0	0%	4.6	1.16	25%
Project Services	364.7	223.6	61%	53.3	29.8	56%	34.9	20.1	58%	71.0	55.8	79%	1.7	1.7	100%	203.8	116.3	57%
Total DFLAW & PS	454.0	245.7	54%	114.9	48.7	42%	42.4	20.2	48%	86.6	57.6	67%	1.7	1.7	100%	208.4	117.5	56%
Total LBL, DFLAW & Project Services	4,250.1	2,171.2	51%	819.9	606.8	74%	567.8	397.1	70%	1,152.0	906.3	79%	1,374.4	113.8	8%	336.0	147.2	44%
PT/HLW/SS Percent Complete Status Frozen as of September 2012 (due to project rebaselining efforts)																		
High-Level Waste	1,478.6	922.1	62%	364.4	325.2	89%	433.9	349.4	81%	581.1	243.2	43%	119.2	4.4	4%	n/a	n/a	n/a
Pretreatment	2,517.3	1,410.5	56%	761.7	645.8	85%	679.9	380.4	56%	890.0	378.6	43%	185.8	5.6	3%	n/a	n/a	n/a
Shared Services	4,728.9	3,632.6	77%	1,047.0	977.9	93%	451.7	395.0	87%	1,436.5	1,143.0	80%	453.5	133.2	29%	1,338.1	983.5	73%
Total HLW/PT/SS	8,722.8	5,965.2	68%	2,173.1	1,948.9	90%	1,565.5	1,124.8	72%	2,887.6	1,764.8	61%	758.5	143.2	19%	1,338.1	983.5	73%
Undistributed Budget	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total WTP	12,972.9	8,136.4	63%	2,993.0	2,555.7	85%	2,133.3	1,521.9	71%	4,039.6	2,671.1	66%	2,132.9	257.0	12%	1,674.1	1,130.7	68%

Source: Preliminary WTP Contract Performance Report - Format 1, Data for October 2015

Note: In September 2012, the LBL Replen was incorporated into the project OTB baseline resulting in increases/decreases to the LBL facility budgets, which correspondingly increased/decreased the facility/function to-date percent complete values. In October 2012, the PT/HLW/SS Interim Work Plan was incorporated into the project OTB baseline resulting in decreases to the PT/HLW/SS facility budgets, this was due to a work scope shift from the Distributed budget to UB. Percent Complete Values shown for PT, HLW and SS have been frozen with the September 2012 values due to the Interim Work Plan and budgets being moved into UB. UB value for the project for PT/HLW/SS is \$2,014M. The percent complete values for the Total WTP are the current total LBL BCWP added to the frozen HLW/PT/SS BCWP values. In March 2014, Project Controls and Project Management work scope was moved out of Shared Services control accounts into the facilities with new control accounts being set up in the facilities. These will now be seen under Project Management/Shared Services by facility. The Shared Services PMB value has not been changed to reflect this change due to the freeze on HLW/PT and SS and the budgets remaining in UB. October 2014 data reflects the incorporation of Direct Feed LAW and the split of Shared Services into LBL Facility Services and Project Services. July 2015 LBL percent complete data is a total of LAW-SOF, LAB and LBL Facility Services. The Project Services Allocation account (xPSA), as shown on the CPR Format 1, is not added to LBL for percent complete purposes.

FINAL

Office of River Protection
Tri-Party Agreement
Monthly Summary Report
December 2015



**Office of River Protection (ORP)
Tri-Party Agreement (TPA) Milestone Review
December 2015 (Monthly Summary Report)**

Project Earned Value Management System reflects October 2015 information

Page	Topic	Leads
1	Administrative Items/Milestone Status	Bryan Trimberger/Dan McDonald/Jeff Lyon
3	System Plan	Kaylin Burnett/Jeff Lyon/Dan McDonald
4	Acquisition of New Facilities	Janet Diediker/Jeff Lyon/Dan McDonald
5	Supplemental Treatment and Part B Permit Applications	Steve Pfaff/Jeff Lyon/Dan McDonald
6	242-A Evaporator Status	Paul Hernandez/Jeff Lyon
7	Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility	Richard Valle/ Stephanie Schleif
8	Tank System Update	Jeremy Johnson/Jeff Lyon
8	Single-Shell Tank Integrity Assurance	Jeremy Johnson/ Jim Alzheimer
10	In Tank Characterization and Summary	Billie Mauss/Michael Barnes
12	Tank Operations Contract Overview	ORP TPA Program Managers/Jeff Lyon
22	Single-Shell Tank Closure Program	Ryan Beach/Jeff Lyon
24	Single-Shell Tank Retrieval Program	Jeremy Johnson/ Jeff Lyon
25	Tank Waste Retrieval Work Plan Status	Jeremy Johnson /Jeff Lyon
26	Tank in Appendix H, "Status - Single Shell Waste Retrieval Criteria"	Jeremy Johnson /Jeff Lyon
26	Tank Retrievals with Individual Milestones	Jeremy Johnson/Jeff Lyon
CD	Waste Treatment and Immobilization Plant (WTP) Overall TPA Summary and Milestone Status; see the U.S. Department of Energy, Office of River Protection Consent Decree 08-5085-FVS Monthly Summary Report for WTP Facility-specific information	Joni Grindstaff/Dan McDonald

Administrative Items/Milestone Status

Milestone	Title	Due Date	Completion Date	Status
Fiscal Year 2015				
M-062-45-T01	Comp. Neg's 6-Mo After Last Issuance of System Plan	04/30/2015		In Dispute
M-062-45-ZZ	Negotiate a One Time Supplemental Treatment Selection	04/30/2015		In Dispute
M-062-45-ZZ-A	Convert M-062-31-T01 Thru M-062-34-T01 to Interim Milestones	04/30/2015		In Dispute
M-045-92	Barrier 3 Design/Monitoring Approval From Ecology	06/30/2015		In Dispute
M-045-82	Submit Comp. Permit Modification Request for Tiers 1,2,3	09/30/2015		In Dispute
M-045-91E1	Provide SST Farms Dome Deflection Surveys Every Two Years.	09/30/2015	9/21/15	Complete
Fiscal Year 2016				
M-045-92N	Construct Barriers 1 and 2 in 241-SX Farm	10/31/2015		In Dispute
M-062-01AF	Submit Semi-Annual Project Compliance Report	01/31/2016		On Schedule
M-047-07	CD-1 for Secondary Liquid Waste Treatment and CR for CD-2 to Ecology	03/31/2016		To Be Missed
M-090-13	CD-1 for Interim Hanford Storage Project and CR for CD-2 to Ecology	03/31/2016		To Be Missed
M-062-31-T01	Comp. Final Design & Submit RCRA Part B Permit Mod Request for Enhanced WTP & Supplemental Treatment	04/30/2016		On Schedule
M-045-92Q	Submit Barrier 4 Design/Monitoring Plan	06/30/2016		In Dispute
M-062-01AG	Submit Semi-Annual Project Compliance Report	07/31/2016		On Schedule
M-045-56L	Ecology And DOE Agree, At A Minimum, To Meet Yearly (By July)	07/31/2016		On Schedule
Fiscal Year 2017				
M-045-92P	Barrier 3 Construction Complete	10/31/2016		In Dispute
M-062-40E	Select a Minimum of Three Scenario's	10/31/2016		On Schedule
M-045-61A	Submit to Ecology a primary doc. Phase 2 CMS and Rev. O update to the RFI Report for WMA C	12/31/2016		On Schedule
M-045-62	Phase 2 Corrective Measures Implementation Work Plan For WMA-C	Six months after CMS approval (M-045-61A)		On Schedule
M-045-84	Comp Neg's of HFFACO Interim Milestones for Closure of 2 nd SST WMA	01/31/2017		On Schedule

Milestone	Title	Due Date	Completion Date	Status
M-062-01AH	Submit Semi-Annual Project Compliance Report	01/31/2017		On Schedule
M-062-01AI	Submit Semi-Annual Project Compliance Report	07/31/2017		On Schedule
M-045-91E2	Provide SST Farms Dome Deflection Surveys' Every Two Years	09/30/2017		On Schedule

CD-1/-2 = critical decision-1/-2.

CMD = current measuring device.

CR = change request.

DOE = U.S. Department of Energy.

Ecology = Washington State Department of Ecology

HFFACO = Hanford Federal Facility Agreement and Consent Order.

RCRA = Resource Conservation and Recovery Act.

RFI = RCRA Facility Investigation.

SST = single-shell tank.

TBD = to be determined.

WTP = Waste Treatment and Immobilization Plant

WMA-C = Waste Management Area C.

System Plan

M-062-45-T01, Every six years, within six months after last revision of the System Plan, negotiate tank waste retrieval sequencing, Due: April 30, 2015, Status: In Dispute.

Significant Past Accomplishments:

1. On October 24, 2013, Washington State Department of Ecology (Ecology) and U.S. Department of Energy (DOE), Office of River Protection (ORP) signed the Tri-Party Agreement (TPA) Change Control Form M-62-13-02, moving out the due date for this embedded milestone from October 31, 2013 to December 15, 2013, for selection of three, or more, scenarios to be modeled in the System Plan.
2. Ecology has defined five scenarios to be analyzed in System Plan 7. Washington River Protection Solutions LLC (WRPS) has included a description of each scenario in the *Selected Scenarios for the River Protection Project System Plan, Rev. 7* document released to ORP on December 4, 2013. See joint ORP and Ecology letter 13-TPD-0070, dated December 12, 2013, for completion and description of M-062-40C scenarios.
3. Detailed assumption review was completed and has been approved by Ecology.
4. On February 11, 2014, ORP transmitted a letter (14-TPD-0003) to WRPS in response to letter WRPS-1400313 to approve the use of Ecology's Appendix B, "Key Assumptions and Success Criteria," for ORP 11242, *River Protection Project System Plan, Rev. 7*. (System Plan 7)
5. On February 13, 2014 Ecology presented the five selected scenarios to the Hanford Advisory Board Tank Waste Committee.
6. Ecology, ORP, and WRPS reviewed and provided comments for Sections 1.0 and 2.0 of System Plan 7 during the week of February 17, 2014.
7. Ecology, ORP and WRPS reviewed and provided comments for Section 3.0 of the System Plan 7 during the week of March 21, 2014.
8. Ecology, ORP and WRPS reviewed and provided comments for Appendix C, "Modeling Tools," of the System Plan 7 during the week of April 1, 2014.
9. During the week of April 28, 2014, WRPS and ORP facilitated meetings for Ecology to define detail spending assumptions for Case 5.
10. On July 29, 2014, WRPS case authors presented the results of the five cases to Ecology and ORP.
11. System Plan 7 was reviewed, all comments resolved, and comments incorporated into the document.
12. On October 31, 2014, ORP transmitted System Plan 7 to Ecology.
13. ORP received Ecology's January 14, 2015, transmitted letter 15-NWP-004, regarding Ecology's review of System Plan 7.
14. ORP met with Ecology at the Tank Farms TPA and Consent Decree (CD) monthly status meeting on February 25, 2015.

15. ORP transmitted Letter 15-WSC-0027, ORP's response to Ecology's letter 15-NWP-004 to Ecology on June 2, 2015. ORP's letter provided clarification and several attachments of additional information requested in Ecology's January 14, 2015, letter.

Significant Planned Actions in the Next Six Months:

None

Issues:

None.

Acquisition of New Facilities

M-090-13, Submit Critical Decision-1 for Interim Hanford Storage Project and TPA Change Request for CD-2 to Ecology, Due: March 31, 2016, Status: To be missed. Created by TPA Change Control Form M-90-12-02, signed by ORP and Ecology on November 19, 2012, to "Submit to Ecology, a Conceptual Design Report Package (Critical Decision-1) for the Interim Hanford Storage Project (storage of the first two years of Hanford Site Immobilized High-Level Waste from WTP operations) and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2)."

M-090-00, Acquire/Modify Facilities for Storage of Immobilized High-Level Waste (IHLW), Due: December 31, 2019, Status: On schedule.

M-047-07, Submit CD-1 for Secondary Liquid Waste Treatment and Change Request (CR) for CD-2 to Ecology, Due: March 31, 2016, Status: To be missed. Created by TPA Change Control Form M-47-12-02, signed by ORP and Ecology on November 19, 2012, to "Submit to Ecology, a Conceptual Design Report package (Critical Decision-1) for the Secondary Liquid Waste Treatment Project and a TPA Change Request (in accordance with TPA Action Plan Section 12.0) to submit to Ecology, a Preliminary Design Report package (Critical Decision-2)."

M-047-00, Complete Work Necessary to Provide Facilities for Management of Secondary Waste from the Waste Treatment and Immobilization Plant (WTP), Due: December 31, 2022, Status: On schedule.

Significant Past Accomplishments:

ORP and Ecology signed TPA Change Packages M-47-14-01 and M-90-14-01 on July 14, 2014 moving the due date for M-047-07 and M-090-13 to March 31, 2016.

Significant Planned Actions in the Next Six Months:

None.

Issues:

None.

Supplemental Treatment and Part B Permit Applications

M-062-45ZZ (designation for M-062-45 item 3), Negotiate a one-time supplemental treatment selection, Due: April 30, 2015, Status: In dispute.

M-062-45ZZ-A, Convert M-062-31-T01 through M-062-34-T01 to Interim Milestones, Due: April 30, 2015, Status: In dispute.

M-062-31-T01, Complete final design and submit Resource Conservation and Recovery Act Part B permit modification request, Due: April 30, 2016, Status: On schedule.

M-062-32-T01, Start construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: April 30, 2018, Status: On schedule.

M-062-33-T01, Complete construction of supplemental vitrification treatment facility and/or WTP enhancements, Due: April 30, 2021, Status: On schedule.

M-062-45XX, No later than December 31, 2021, the DOE and Ecology shall complete negotiations to establish a mechanism that will apply to resolve future disputes regarding the determinations in M-062-45, paragraphs 4 and 5, Due: December 31, 2021, Status: On schedule.

M-062-34-T01, Complete hot commissioning of supplemental vitrification treatment facility and/or WTP enhancements, Due: December 30, 2022, Status: On schedule.

M-062-21, Annually submit data that demonstrates operation of the WTP, Due: February 28, 2023, Status: On schedule.

M-062-00, Complete Pretreatment Processing and Vitrification of High-Level Waste and LAW Tank Wastes, Due: December 31, 2047, Status: On schedule.

Significant Past Accomplishments:

*Per ORP letter 14-TF-0052, signed by ORP on May 6, 2014 and provided to Ecology on May 7, 2014, ORP documented the ORP/Ecology discussions for the *One-Time Hanford Tank Waste Supplemental Treatment Technologies Report* and that ORP does not intend to submit this report. ORP received Ecology's response letter, 14-NWP-110, on May 29, 2014. ORP letter 14-TF-0088, dated and delivered to Ecology on July 31, 2014, submitted a signed TPA change package to delete the requirement of the *One-Time Hanford Tank Waste Supplemental Treatment Technologies Report* from TPA Milestone M-062-40. Ecology signed TPA Change Package M-62-14-01 deleting M-062-40ZZ on August 12, 2014.

Significant Planned Actions in the Next Six Months: None.

Issues:

On January 30, 2015, ORP provided Ecology Change Control Form M-62-14-02, which proposed adding language under TPA Milestone M-062-45 to defer negotiations required under

M-062-45. Ecology did not respond with the 14-day review period that ended February 13, 2015 which is deemed disapproval in accordance with the TPA. In letter 15-TF-0014, dated February 20, 2015, ORP initiated a dispute resolution. Ecology provided a justification for their disapproval on March 12, 2015 via letter 15-NWP-036. Ecology and ORP signed an extension of the dispute resolution period at the TPA project manager level until February 18, 2016. The extension is available in the TPA Administrative Record at <http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=1509230319>

242-A Evaporator Status

(previously reported under Milestone M-48, which has been closed out)

242-A Evaporator Status:

The 242-A Evaporator campaign strategy for fiscal year (FY) 2015 through third quarter of FY 2016 depicted in the following table:

Fiscal Year	Campaign No.	Feed Source	Slurry Tank	Comments
FY 2015	EC-01	AP-103 AP-104	AP-107	Campaign and flush activities completed on June 21, 2015.
FY 2015	EC-02	AZ-102	AP-103	Completed July 21, 2015.
FY 2015	EC-03	AZ-102	AP-103	Completed September 25, 2015.
FY 2016	EC-04	AW-106	AP-103	Estimated to begin third quarter FY 2016.
FY 2016	EC-05	AP-104	AP-103	Estimated to begin third quarter FY 2016.
FY 2016	EC-06	AP-104	AP-104	Estimated to begin third quarter FY 2016.

FY = fiscal year.

Significant Planned Actions in the Next Six Months:

- Future campaign and outage scheduling
- 242-A Evaporator instrument calibrations and preventive maintenance
- 242-A Evaporator oil filled window maintenance
- Replacement of temperature elements TE-CA1-1 and -1S

Issues:

None.

Liquid Effluent Retention Facility and 200 Area Effluent Treatment Facility

Status:

The Liquid Effluent Retention Facility (LERF) liquid levels, inventory, and received waste is shown in the table below for the time period of November 1 – 30, 2015.

Note: Volumes in this table are estimated. Tanker shipment volumes are estimated by multiplying the number of shipments by the capacity of the tanker being used.

	242AL-42 (Basin 42)	242AL-43 (Basin 43)	242AL-44 (Basin 44)
Volume (as of 11/30/15)	~4.70 Mgal	~5.99 Mgal	~6.36 Mgal
AZ-301 Tanker Shipments	-	-	-
MWBT-31 & 34 Leachate	-	-	~7,000 gal
Perched Water Tanker Shipments	-	-	-
ERDF Leachate Transfers	-	~157,000 gal	-
Other (325 Building Totes)	-	~2,600 gal	-

ERDF Environmental Restoration Disposal Facility
Gal gallon
Mgal million gallons
MWBT mixed waste burial trench

Significant Planned Actions in the Next Six Months:

- Staff training, component and system testing, and readiness activities will be performed before restart approval can be granted.
- Pressure safety valve shall be replaced before a leak test is conducted on the system.
- Berm coating of specific areas at the ETF and LERF are to be repaired in the following months.
- Class 1 Modifications are under development for the quarter ending December 31, 2015.

Issues:

None.

Tank System Update

Significant Planned Actions in FY 2016:

Double Shell Tank (DST) Integrity

- Enhanced annulus video inspection:
 - 241-AN-101
 - 241-AN-103
 - 241-AN-104
 - 241-AN-105
 - 241-AN-106
 - 241-AW-103
 - 241-AW-106
 - 241-SY-101
 - 241-SY-102
 - 241-SY-103.
 - Ultrasonic testing (UT) inspections (two risers for primary wall/welds, one riser for secondary floor):
 - 241-AN-105
 - 241-AW-103.
 - Continuing bi-weekly inspections of AY-102 waste accumulation site
 - Continuing bi-monthly comprehensive inspection of AY-102 annulus
 - Revise and update RPP-7574, *Double-Shell Tank Integrity Project Plan*
 - Release DST independent qualified registered professional engineer (IQRPE) integrity assessment report per WAC 173-303-640(2).
-

Single Shell Tanks (SST) Integrity

- In-Tank video inspections:
 - 241-T-107
 - 241-T-110
 - 241-TX-103
 - 241-TX-111
 - 241-TX-113
 - 241-TX-116
 - 241-B-101
 - 241-B-201
 - 241-BY-105
 - 241-U-102
 - 241-U-105
 - 241-U-107.

- Intrusions mitigation (M45-56):
 - Complete 241-T-111
 - Subsequent tank to be determined.

Current Status

- The blanket master agreement (BMA) for nondestructive examination services is being placed.

Single-Shell Tank Integrity Assurance

M-045-91I, Provide to Ecology an Independent, Qualified, Registered Professional Engineer (IQRPE) certification of single-shell tanks (SST) structural integrity for the remainder of the mission, or for such time as the IQRPE believes he/she can reasonably certify, Due: September 30, 2018, Status: On schedule.

Significant Past Accomplishments:

Completion of M-045-91E1 on September 21, 2015 with issuance of RPP-RPT-55202, *Dome Survey Report for Hanford Single-Shell Tanks, Revision 1*. The report was discussed with Ecology on October 13, 2015, and both parties expressed interest in continuing this work but not requiring formal transmittal as a Tri-Party Agreement (TPA) milestone requirement.

Significant Planned Actions in the Next Six Months:

Begin planning for the SST integrity assessment by an independent, qualified, registered professional engineer (IQRPE) (M-045-91I).

Issues: None.

In Tank Characterization and Summary

For the period from November 1 through November 30, 2015:

Accomplishments:

- Completed RPP-RPT-58727, *Derivation of Best-Basis Inventory for Tank 241-TX-114 as of October 1, 2015*, Rev 0.
- Completed RPP-RPT-44630, *Derivation of Best-Basis Inventory for Tank 241-AY-102 as of October 28, 2015*, Rev 10.
- Completed RPP-RPT-44049, *Derivation of Best-Basis Inventory for Tank 241-AZ-102 as of October 1, 2015*, Rev 09.
- Completed RPP-RPT-59039, *Derivation of Best-Basis Inventory for Tank 241-AX-104 as of October 1, 2015*, Rev 0.
- Completed RPP-RPT-44814, *Derivation of Best-Basis Inventory for Tank 241-AN-101 as of October 1, 2015*, Rev 19.
- Completed RPP-RPT-43992, *Derivation of Best-Basis Inventory for Tank 241-AN-106 as of October 1, 2015*, Rev 14.
- Completed RPP-RPT-58701, *Derivation of Best-Basis Inventory for Tank 241-TX-111 as of October 1, 2015*, Rev 0.
- Completed RPP-RPT-58698, *Derivation of Best-Basis Inventory for Tank 241-TX-107 as of July 1, 2015*, Rev 01.
- Completed RPP-44057, *Data Quality Objectives to Support Strategic Planning*, Rev 2.
- Completed RPP-CALC-60591, *Tank 241-AZ-102 FY16 Q1 Supernatant Process Knowledge Vector Concentration Calculation*, Rev 1.
- Completed HNF-EP-0182, *Waste Tank Summary Report for Month Ending September 30, 2015*, Rev 333.
- RPP-RPT-59026, *Final Report for Tank 241-AP-105 Grab Sampling in Support of Waste Compatibility in Fiscal Year 2015*, Rev 0, was released November 18, 2015.
- RPP-RPT-58823, *Final Report for Tank 241-SY-102 Cores 333 and Cores 334 in Support of Corrosion Mitigation, Criticality, and Strategic Planning*, Rev 1, was released November 19, 2015.
- Completed 241-AN-106 grab sampling that occurred on November 12, 2015, and November 17, 2015. Eight samples were received at the lab.

Planned Action within the Next Six Months:

Tank sampling:

- Tank 241-C-102 extended reach sluicing system (ERSS) closure sampling is planned to begin December 2015.
- Tank 241-C-111 hard heel retrieval in-process grab sampling is planned to begin December 2015.

- Tank 241-SY-101 grab sampling is planned for December 2015.
- Tank 241-AP-104 grab sampling is planned for December 2015.
- Tank 241-AN-101 grab sampling is planned for January 2016.
- Tank 241-AY-101 Evaporator campaign EC-07 grab sampling is planned for March 2016.
- Tank 241-AP-107 grab sampling is planned for April 2016.
- Tank 241-C-111 Off-Riser Sampling System (ORSS) closure sampling is planned for April 2016.
- Tank 241-AP-102 grab sampling at AY-102 50% retrieval is planned for May 2016.

Best-Basis Inventory (BBI) updates:

BBI updates for the following tanks were completed in November:

- | | |
|--------------|--------------|
| • 241-AN-101 | • 241-AZ-102 |
| • 241-AN-106 | • 241-TX-107 |
| • 241-AX-104 | • 241-TX-111 |
| • 241-AY-102 | • 241-TX-114 |

BBI updates for the following tanks currently are planned to be completed in December:

- | | |
|--------------|--------------|
| • 241-AP-103 | • 241-SY-102 |
| • 241-AP-104 | • 241-AW-102 |
| • 241-AP-107 | • 241-TX-115 |

Data Quality Objectives (DQO):

- RPP-8532, *Double-Shell Tanks Chemistry Control Data Quality Objectives*, Rev 15, is in-process to identify additional analyses for corrosion mitigation and to simplify quality control parameters is planned to be released in December.

Issues:

None.

Tank Operations Contract Overview

Project Performance

The earned value performance reporting reflects the format, work breakdown structure reporting levels, and variance thresholds as agreed to with the Tank Operations Contractor (TOC) for monthly performance reporting. The earned value analysis is not intended to be a measurement of performance against existing TPA milestones.

As of October 31, 2015, WRPS TOC has worked 311,700 hours or 25 days without a lost time workday injury, and has worked 311,700 hours or 25 days since the last recordable case.

October-15										
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	BAC	EAC	VAC
CM	32,139	33,377	32,188	1,238	1,189	1.04	1.04			
FYTD	32,139	33,377	32,188	1,238	1,189	1.04	1.04	549,780		
CTD	2,882,979	2,864,629	2,856,866	(18,350)	7,763	0.99	1.00	3,400,621	3,417,459	(16,838)

ACWP = actual cost of work performed.
 BAC = budget at completion.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CM = current month
 CPI = cost performance index.
 CTD = cumulative to date

CV = cost variance.
 EAC = estimate at completion.
 FYTD = fiscal year to date
 SPI = schedule performance index.
 SV = schedule variance.
 VAC = variance at completion.

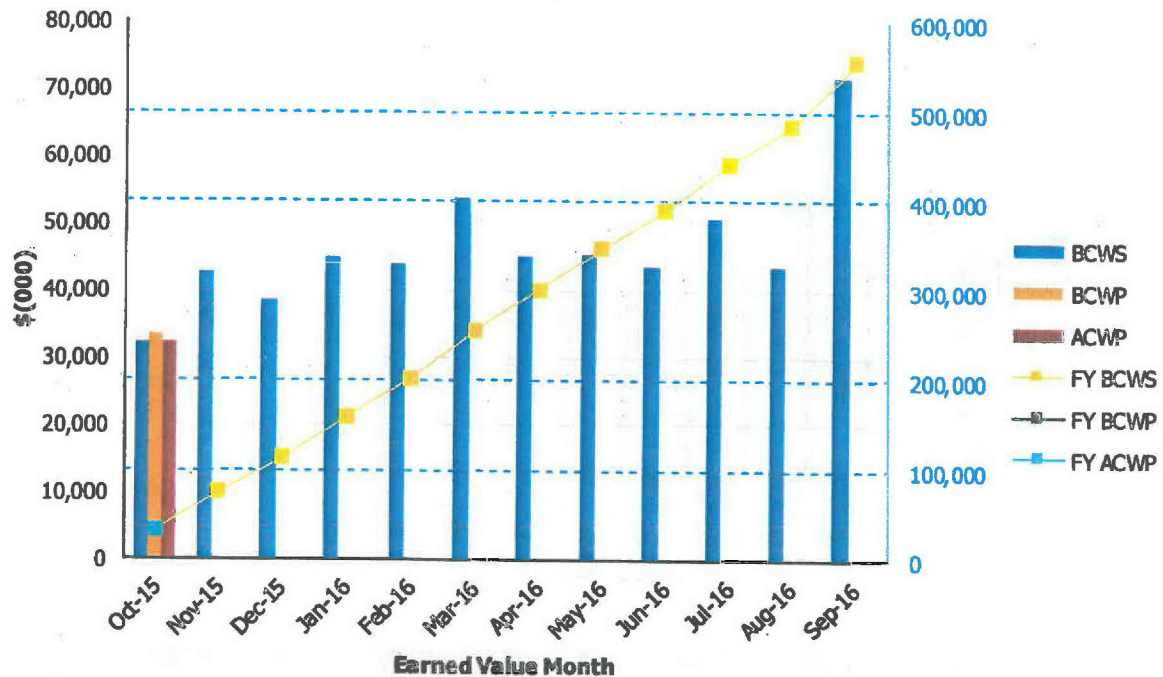
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

October-15

Tank Farms ORP-0014

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$32,139	\$33,377	\$32,188	1.04	1.04	\$32,139	\$33,377	\$32,188	1.04	1.04
Nov 2015	\$42,662	\$0	\$0	0.00	0.00	\$74,801				
Dec 2015	\$38,530	\$0	\$0	0.00	0.00	\$113,331				
Jan 2016	\$44,742	\$0	\$0	0.00	0.00	\$158,073				
Feb 2016	\$44,004	\$0	\$0	0.00	0.00	\$202,077				
Mar 2016	\$53,701	\$0	\$0	0.00	0.00	\$255,778				
Apr 2016	\$45,258	\$0	\$0	0.00	0.00	\$301,036				
May 2016	\$45,520	\$0	\$0	0.00	0.00	\$346,557				
Jun 2016	\$43,577	\$0	\$0	0.00	0.00	\$390,133				
Jul 2016	\$50,793	\$0	\$0	0.00	0.00	\$440,926				
Aug 2016	\$43,659	\$0	\$0	0.00	0.00	\$484,585				
Sep 2016	\$71,769	\$0	\$0	0.00	0.00	\$556,355				
CTD	\$2,882,979	\$2,864,629	\$2,856,866	0.99	1.00					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

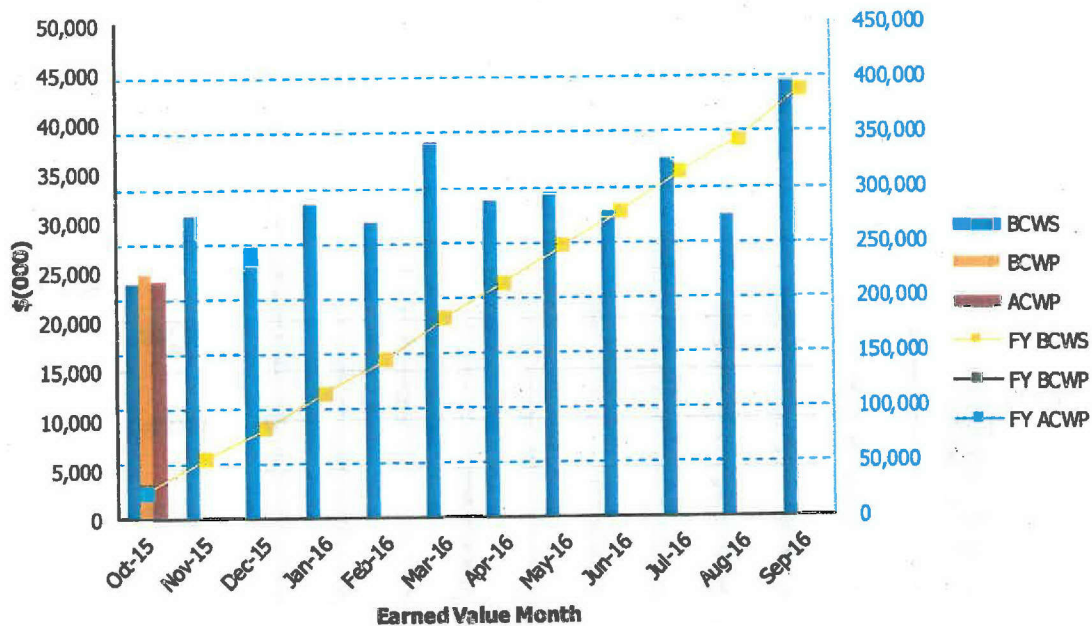
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

October-15

Tank Farms ORP-0014**Base Operations 5.01**

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$23,768	\$24,839	\$24,025	1.05	1.03	\$23,768	\$24,839	\$24,025	1.05	1.03
Nov 2015	\$30,658	\$0	\$0	0.00	0.00	\$54,426				
Dec 2015	\$27,341	\$0	\$0	0.00	0.00	\$81,767				
Jan 2016	\$31,744	\$0	\$0	0.00	0.00	\$113,511				
Feb 2016	\$29,828	\$0	\$0	0.00	0.00	\$143,339				
Mar 2016	\$38,009	\$0	\$0	0.00	0.00	\$181,348				
Apr 2016	\$31,955	\$0	\$0	0.00	0.00	\$213,302				
May 2016	\$32,798	\$0	\$0	0.00	0.00	\$246,100				
Jun 2016	\$30,944	\$0	\$0	0.00	0.00	\$277,044				
Jul 2016	\$36,201	\$0	\$0	0.00	0.00	\$313,245				
Aug 2016	\$30,453	\$0	\$0	0.00	0.00	\$343,698				
Sep 2016	\$43,953	\$0	\$0	0.00	0.00	\$387,651				
CTD	\$1,915,652	\$1,907,052	\$1,897,854	1.00	1.00					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

Base Operations and Tank Farm Projects

The current month favorable Schedule Variance (SV) of \$1,072K is due to:

- AP-102 Equipment Removal and Installations - Schedule recovery regarding electrical installation (conduit, wire pull, backfill) within AP Farm and completing AP-02A mix pump removal.
- Schedule recovery of the double shell tank transfer encasement integrity checks (AP-02A encasement check).
- 222S Lab Upgrades and Sampling, Material Procurement - Favorable schedule variance is due to accelerated arrival of GC/MS and autosampler equipment to be used in 222-S labs in support of vapor sampling.

The current month favorable Cost Variance (CV) of \$814K is due to:

- Tank AP-102 equipment removal and installations - Less direct and subcontractor resources required to complete electrical field work

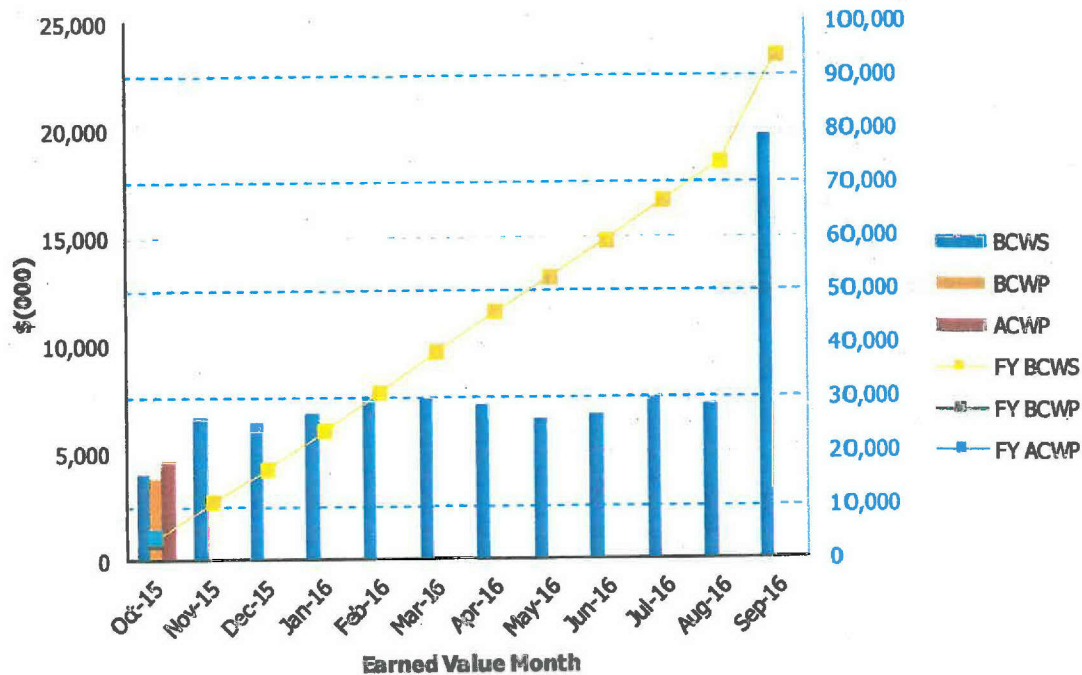
EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

October-15

Tank Farms ORP-0014
Retrieve and Close SST's 5.02

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$3,972	\$3,814	\$4,560	0.96	0.84	\$3,972	\$3,814	\$4,560	0.96	0.84
Nov 2015	\$6,619	\$0	\$0	0.00	0.00	\$10,591				
Dec 2015	\$6,338	\$0	\$0	0.00	0.00	\$16,929				
Jan 2016	\$6,764	\$0	\$0	0.00	0.00	\$23,693				
Feb 2016	\$7,470	\$0	\$0	0.00	0.00	\$31,163				
Mar 2016	\$7,418	\$0	\$0	0.00	0.00	\$38,580				
Apr 2016	\$7,219	\$0	\$0	0.00	0.00	\$45,800				
May 2016	\$6,564	\$0	\$0	0.00	0.00	\$52,364				
Jun 2016	\$6,710	\$0	\$0	0.00	0.00	\$59,073				
Jul 2016	\$7,500	\$0	\$0	0.00	0.00	\$66,573				
Aug 2016	\$7,215	\$0	\$0	0.00	0.00	\$73,788				
Sep 2016	\$19,745	\$0	\$0	0.00	0.00	\$93,532				
CTD	\$596,450	\$589,041	\$614,532	0.99	0.96					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

Retrieve and Close Single Shell Tanks

The current month unfavorable schedule variance (SV) of **(\$158K)** is within the reporting threshold.

The current month unfavorable cost variance (CV) of **(\$745K)** is due to:

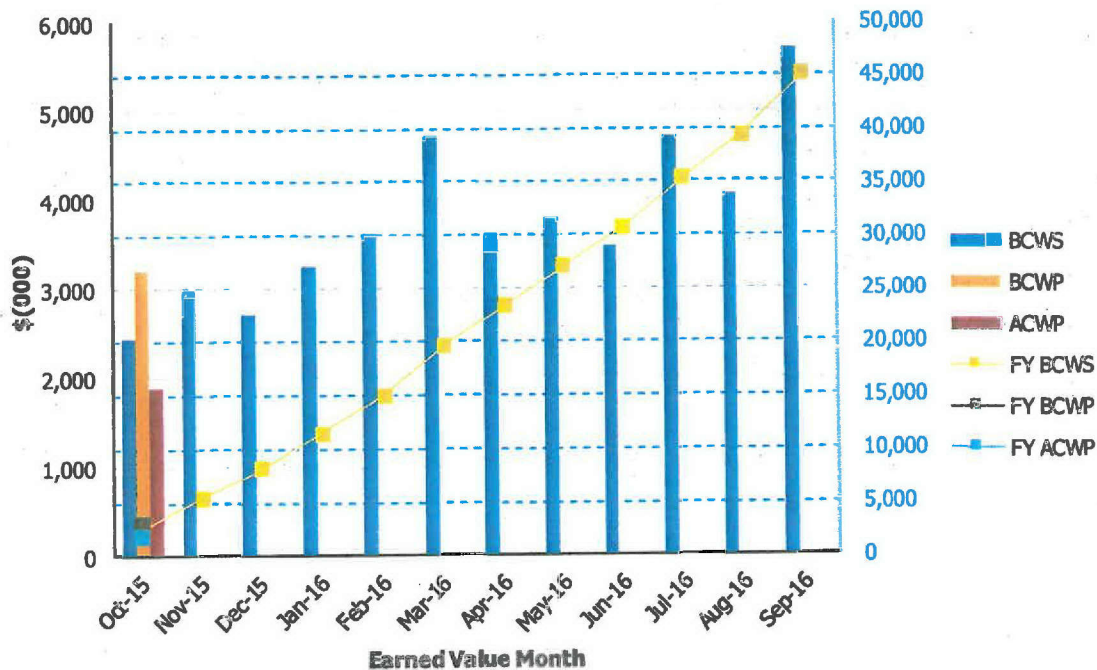
- Retrieval operations briefly resumed at Tank-241-C-111 on October 4, 2015 and an estimated 2K gallons were removed from the tank until a hydraulic leak was realized. The project team is required to maintain the retrieval crew during non-retrieval operations to monitor and maintain retrieval equipment. Performance is based on retrieval operations (gallons retrieved).

Data Set: FY 2016 Earned Value Data

October-15

Tank Farms ORP-0014
Waste Feed Delivery /Treatment/ Double-Shell Tank Retrieval Closure 5.03

EVMS Monthly and Fiscal Year Values



Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$2,434	\$3,210	\$1,876	1.32	1.71	\$2,434	\$3,210	\$1,876	1.32	1.71
Nov 2015	\$2,987	\$0	\$0	0.00	0.00	\$5,421				
Dec 2015	\$2,714	\$0	\$0	0.00	0.00	\$8,134				
Jan 2016	\$3,241	\$0	\$0	0.00	0.00	\$11,376				
Feb 2016	\$3,602	\$0	\$0	0.00	0.00	\$14,978				
Mar 2016	\$4,702	\$0	\$0	0.00	0.00	\$19,680				
Apr 2016	\$3,618	\$0	\$0	0.00	0.00	\$23,298				
May 2016	\$3,784	\$0	\$0	0.00	0.00	\$27,082				
Jun 2016	\$3,485	\$0	\$0	0.00	0.00	\$30,566				
Jul 2016	\$4,720	\$0	\$0	0.00	0.00	\$35,286				
Aug 2016	\$4,061	\$0	\$0	0.00	0.00	\$39,347				
Sep 2016	\$5,695	\$0	\$0	0.00	0.00	\$45,042				
CTD	\$331,106	\$329,486	\$306,959	1.00	1.07					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

Waste Feed Delivery/Treatment/Double-Shell Tank Retrieval Closure

The current month favorable schedule variance (SV) of \$776K is due to:

- Performance related to Technetium Removal and Low Temperature Waste Form scope. This scope was not completed as planned in FY 2015 and has been carried over into FY 2016. Technetium Removal is planned to complete in the first quarter of FY 2016 and Low Temperature Waste Form scope will continue to be performed until it is completed in the third quarter of FY 2016.
- Performance related to Secondary Waste Form Development scope, which was not completed as planned in FY 2015 and has been carried over into FY 2016. Secondary Waste Form Development will continue to be performed until it is completed in the second quarter of FY 2016.

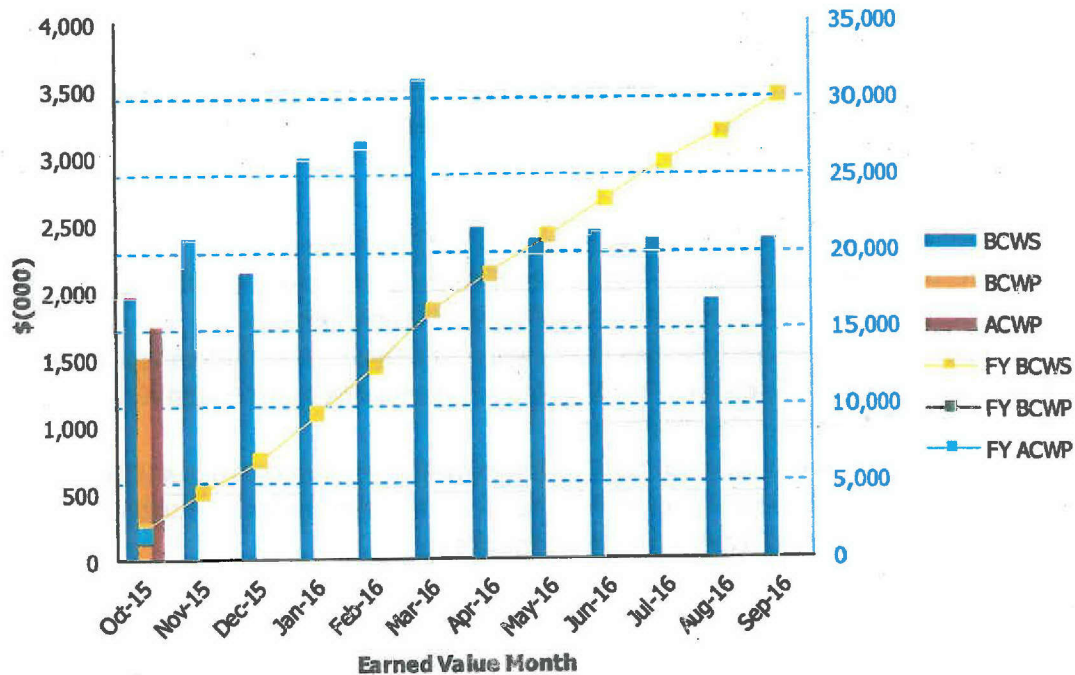
The current month favorable cost variance (CV) of \$1,334K is due to:

- Reflects over-stated contract to date accrual from the previous month resulting in a positive cost variance this month for Technology Development.
- The Tank Waste Database Management account corrected an understated performance from September 2015, the cost for this scope was reported in September. This resulted in current month positive Cost Variance.
- Efficiencies realized as a result of SRNL's expertise in work scope as it pertains to performance of the engineering scale leach tests and the analysis of the samples within the Low Temperature Waste Form work package.

EXC-01a: Fiscal Year Cost and Schedule Report

Data Set: FY 2016 Earned Value Data

October-15

Tank Farms ORP-0014**Treat Waste 5.5****EVMS Monthly and Fiscal Year Values**

Earned Value Month	BCWS	BCWP	ACWP	SPI	CPI	FY BCWS	FY BCWP	FY ACWP	FY SPI	FY CPI
Oct 2015	\$1,965	\$1,513	\$1,735	0.77	0.87	\$1,965	\$1,513	\$1,735	0.77	0.87
Nov 2015	\$2,399	\$0	\$0	0.00	0.00	\$4,364				
Dec 2015	\$2,137	\$0	\$0	0.00	0.00	\$6,501				
Jan 2016	\$2,993	\$0	\$0	0.00	0.00	\$9,493				
Feb 2016	\$3,104	\$0	\$0	0.00	0.00	\$12,597				
Mar 2016	\$3,573	\$0	\$0	0.00	0.00	\$16,170				
Apr 2016	\$2,466	\$0	\$0	0.00	0.00	\$18,637				
May 2016	\$2,374	\$0	\$0	0.00	0.00	\$21,011				
Jun 2016	\$2,438	\$0	\$0	0.00	0.00	\$23,449				
Jul 2016	\$2,373	\$0	\$0	0.00	0.00	\$25,822				
Aug 2016	\$1,931	\$0	\$0	0.00	0.00	\$27,753				
Sep 2016	\$2,376	\$0	\$0	0.00	0.00	\$30,129				
CTD	\$19,661	\$18,940	\$18,357	0.96	1.03					

ACWP = actual cost of work performed.
 BCWP = budgeted cost of work performed.
 BCWS = budgeted cost of work scheduled.
 CPI = cost performance index.

EVMS = Earned Value Management System.
 FY = fiscal year.
 SPI = schedule performance index

Treat Waste

The current month unfavorable schedule variance (SV) of **(\$452K)** is due to:

- The delay in the procurement of sRF resin for the integrated test. A work around has been developed to acquire the sRF resin. In addition, the schedule variance is also attributed to the activity being planned earlier than needed.

The current month unfavorable cost variance (CV) of **(\$222K)** is due to:

- Washington River Protection Solutions over estimating Pacific Northwest National Laboratory accrual for Integrated Support Testing subcontract. Pacific Northwest National Laboratory did not submit an accrual for the work performed in October 2015, which resulted in the over-reporting of cost for the work performed during the current reporting period.

Single-Shell Tank Closure Program

M-045-00, Complete closure of all SST farms, Due: January 31, 2043, Status: On schedule.

M-045-56K, Complete Implementation of Agreed to Interim Measures, Due: July 31, 2015, Status: Complete. Annual meeting was held July 15, 2015. Meeting notes have been placed in the Administrative Record at this location:

<http://pdw.hanford.gov/arpir/index.cfm/viewDoc?accession=0080444H>

M-045-59, Control surface water infiltration pathways as needed to control or significantly reduce the likelihood of migration of subsurface contamination to groundwater at the SST Waste Management Areas (WMA) (pending the Corrective Measures Study report, Milestone M-45-58, and implementation of other interim corrective measures), Due: To be determined, Status: On schedule.

M-045-61A, Submit to Ecology for review and approval as an Agreement primary document, document review process, a Phase 2 Corrective Measures Study, and Revision 0 update to the RFI Report for WMA-C), Due: December 31, 2016, Status: On Schedule. The *Phase 2 RCRA Facility Investigation Report Draft A* for Waste Management Area C (WMA-C), RPP-RPT-58339, was transmitted to Ecology on December 23, 2014, via letter 14-TF-0131. This milestone was created by *Hanford Federal Facility Agreement and Consent Order* (HFFACO) change package M-45-14-03, signed October 1, 2014.

M-045-62, Submit to Ecology for review and approval as an agreement primary document a Phase 2 Corrective Measures Study Implementation Plan for WMA-C, Due: Six months after the approval of the corrective measures study (CMS) submitted under milestone M-045-61A. Status: On schedule. TPA Change Control form M-45-15-02 approved on April 14, 2015.

M-045-82, Submit complete permit mod requests for Tiers 1, 2, and 3 of the SST, Due: September 30, 2015, Status: In dispute. Please see issues.

M-045-83, Complete the closure of WMA-C, Due: June 30, 2019, Status: To be missed. Please see issues.

M-045-84, Complete negotiations of TPA interim milestones for closure of second WMA, Due: January 31, 2017, Status: On schedule.

M-045-85, Complete negotiations of TPA interim milestones for closure of remaining WMAs, Due: January 31, 2022, Status: On schedule.

M-045-92 (N, O, P, Q, R) Complete Installation of Four (4) Additional Interim Barriers, Due: October 31, 2017, Status: In Dispute. Please see issues.

Significant Past Accomplishments:

- Automated data collection systems for T Farm and TY Farm interim barrier monitoring continue gathering data

- Completed the annual interim barrier monitoring report for data collected in 2014, RPP-ENV-58420.
- Documentation of the Waste Management Area C (WMA-C) Phase 2 Resource Conservation and Recovery Act (RCRA) Facility Investigation (RFI) Report was completed, and RPP-RPT-58339 was transmitted to Ecology on December 23, 2014, completing M-045-61.
- Submitted TPA/RCRA Tier I Closure Plan on September 30, 2015 to Ecology
- Finalized Integrated Disposal Facility (IDF) PA data packages from workshop 2.

Significant Planned Activities in the Next Six Months:

- Continue data collection for T Farm and TY Farm interim surface barrier monitoring and develop the annual interim barrier monitoring report for 2015.
- Complete TPA/RCRA Tier 3 closure plan templates for C-200 Tanks
- Finalize/Issue for IDF PA Summary Analysis.

Issues:

- **M-045-82, Submit complete permit mod requests for Tiers 1, 2, and 3 of the SST**
Change Control Form M-45-15-03 was submitted by ORP via letter 15-TF-0065 to Ecology for approval on June 30, 2015.
Ecology disapproved M-45-15-03 via letter 15-NWP-128 on July 14, 2015
ORP initiated dispute resolution via letter 15-TF-0069 on July 16, 2015
This dispute has been extended to February 18, 2016. ORP agreed to submit an integrated closure schedule to Ecology by December 31, 2015.
- **M-045-92 (N, O, P, Q, R), Complete Installation of Four (4) Additional Interim Barriers**
(N) Construct SX ISB 1 and 2 by October 31, 2015
(O) Design ISB 3 by June 30, 2015
(P) Construct ISB 3 by October 31, 2016
(Q) Design ISB 4 by June 30, 2016
(R) Construct ISB 4 by October 31, 2017
Change control form M-45-15-01 was submitted by ORP via letter 15-TF-0027 to Ecology for approval on March 31, 2015.
Ecology disapproved M-45-15-01 via letter 15-NWP-075 on April 17, 2015.
ORP initiated dispute resolution via letter 15-TF-0042 on April 20, 2015.
This dispute has been extended to January 29, 2016, with a proposed draft settlement proposed by Ecology. Currently ORP is reviewing the proposal.

Single-Shell Tank Retrieval Program

M-045-70, Complete waste retrieval from all remaining SSTs, Due: December 31, 2040, Status: On schedule.

M-045-86, Submit retrieval data report (RDR) to Ecology for 19 tanks retrieved, Due: To be determined (12 months after retrieval certification), Status: At risk.

- M-045-86I: RDR for C-101 was due September 24, 2015, completed on September 24, 2015 with letter 15-TF-0099.
- M-045-86C: RDR for C-104 was due March 21, 2014, completed on February 18, 2014 with letter 14-TF-0013
- M-45-86E: RDR for C-107 was due July 28, 2015, completed on September 15, 2015 with letter 15-TF-0086.
- M-045-86F: RDR for C-108 was due May 1, 2014, completed on November 27, 2013 with letter 13-TF-0120
- M-045-86G: RDR for C-109 was due June 4, 2014, completed on March 13, 2014 with letter 14-TF-0020
- M-045-86H: RDR for C-110 was due January 29, 2015, completed on August 6, 2014 with letter 14-TF-0086.
- M-045-86K: RDR for C-112 was due September 30, 2015, completed on September 30, 2015 with letter 15-TF-0098

Significant Past Accomplishments:

- Ecology approved practicability evaluation request to forego a third retrieval technology in Tank 241-C-102.
- Retrieved approximately 45 percent of waste from Tank 241-C-105 utilizing the Mobile Arm Retrieval System – Vacuum (MARS- V) and high-pressure water.
- Completed extended reach sluicing system (ERSS) installation and operational testing for Tank 241-C-111.
- Resumed retrieval operations at Tank 241-C-111 and removed an estimated 2K gallons of waste during October, 33K gallons of waste remain.
- Completed C-101, C-107, and C-112 retrieval data reports (RDR).
- Isolated two legacy duct ventilation lines at AX Farm.

Significant Planned Activities in the Next Six Months:

- Complete C-102 retrieval completion certificate and report
- Complete C-105 second and third retrieval technologies.
- Complete C-111 ERSS complete retrieval operations (second and third technologies).
- Complete A/AX infrastructure (water and utilities) design – FY 2015 Phase 4A and Phase 5.

- Complete AX Farm tank retrieval system media for AX Farm to AX-102 retrieval system.
- Complete AX Farm field work for tower, stack extension, and platform installation.
- Complete AX Farm office trailer design (temporary facilities).
- Complete A/AX infrastructure safety instrument system (SIS) design modifications.
- Complete equipment removal/disposal at AX-101 pit and riser.
- Complete AX-2707 fencing and gate upgrades

Issues:

None

Tank Waste Retrieval Work Plan Status

Tank	TWRWP	Expected Revisions	First Retrieval Technology	Second Technology	Third Technology
C-101	RPP-22520, Rev. 8	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-102	RPP-22393, Rev. 7	Complete	Modified Sluicing with ERSS	High-Pressure Water deployed with the ERSS	-
C-104	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0018	-
C-105	RPP-22520, Rev. 8	Complete	MARS-V	MARS-V-High Pressure Water Spray	-
C-107	RPP-22393, Rev. 7	Complete	MARS-S	MARS-S-High Pressure Water Spray	Water Dissolution
C-108	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0025	-
C-109	RPP-21895, Rev. 5	Complete	Modified Sluicing	Chemical Retrieval Process complete per 13-TF-0037	-
C-110	RPP-33116, Rev. 3	Complete	Modified Sluicing	Mechanical Waste Conditioning with an In-Tank Vehicle	High Pressure Water
C-111	RPP-37739, Rev. 2	Complete	Modified Sluicing	High pressure water using the ERSS	Chemical Dissolution Process with ERSS
C-112	RPP-22393, Rev. 7	Complete	Modified Sluicing	Chemical Retrieval Process	-

ERSS = Extended Reach Sluicing System
MARS = Mobile Arm Retrieval System
S = sluicing

TWRWP = Tank Waste Retrieval Work Plan
V = vacuum

Significant Accomplishments:

None.

Significant Planned Activities in the Next Six Months:

- Develop AX Farm tank waste retrieval work plans.

Issues:

None.

Tank in Appendix H, "Status - Single Shell Waste Retrieval Criteria"**Tank 241-C-106****Significant Past Accomplishments:**

None.

Significant Planned Activities in the Next Six Months:

- Continue U.S. Nuclear Regulatory Commission (NRC) review of the C-106 exception request. A request for additional information was received from the NRC in February 2009.

Issues:

- It has been discussed with the NRC that much of the additional information requested is dependent upon development of C Farm residual waste PA and, therefore, cannot be provided until the PA is published.

Tank Retrievals with Individual Milestones**Tank 241-A-103**

M-045-15, Completion of Tank A-103 SST Waste Retrieval, Due: September 30, 2022, Status: On schedule. Change package M-45-11-04 replaced Tank S-102 with Tank A-103 and changed the milestone completion date for M-045-15 to September 30, 2022.

M-045-15A, Embedded Milestone, Submit a Retrieval Data Report Pursuant to Agreement Appendix I, Due: September 30, 2022, Status: On schedule. Updated with Tank A-103 and due date of September 30, 2022, per change package M-45-11-04.

M-045-15D, Embedded Milestone, if appropriate, DOE will request an exception to waste retrieval criteria pursuant to Agreement Appendix H, Due: September 30, 2022, Status: On

schedule. Updated with Tank A-103 and due date of September 30, 2022, per change package M-45-11-04.

Significant Past Accomplishments:

- Change package M-45-11-04 was signed by ORP and Ecology on April 19, 2011.

No significant planned activities in the next six months and no issues for Tank 241-A-103.

Tank 241-S-112

M-045-13, Interim Completion of Tank S-112 SST Waste Retrieval and Closure Demonstration Project, Due: To be determined (in accordance with M-045-84 or M-045-85),
Status: On schedule.

M-045-13E, Complete Negotiations for Interim Milestones for Closure of S-112, Due: To be determined, **Status:** On schedule as part of M-045-84 or M-045-85.

Significant Past Accomplishments:

- Ecology letter of January 7, 2008, concurred with ORP that retrieval of Tank S-112 is complete.

No significant planned activities in the next six months and no issues for Tank 241-S-112.